Energy Supply Research and Development

Department of Energy
FY 1998 Budget Request to Congress
(discretionary dollars in thousands)

	FY 1996 Current Appropriation	FY 1996 Comparable Appropriation	FY 1997 Current Appropriation	FY 1997 Comparable Appropriation	FY 1998 Request
Other Energy Programs					
Technical information management					
Technical information management program	11,960	3,160	3,300	3,300	3,427
Program direction	——	8,800	8,700	8,700	8,560
Total, Technical information management	11,960	11,960	12,000	12,000	11,987
In-house energy management	——	342	——	——	——
Field offices and management	——	101,277	98,400	98,400	100,233
Subtotal, Other Energy Programs	11,960	113,579	110,400	110,400	112,220
Use of prior year balances	-180	-180	-163	-163	——
Total, Other Energy Programs	11,780	113,399	110,237	110,237	112,220
Environmental Restoration & Waste Mgmt. (Non-Defense)					
Corrective activities	4,339	——	——	——	——
Environmental restoration	359,559	358,498	328,000	328,000	457,625
Waste management	181,197	170,489	183,858	177,994	153,004
Nuclear material and facility stabilization	73,002	78,765	79,671	73,100	71,758
Subtotal, Environmental Restoration & Waste Mgmt.	618,097	607,752	591,529	579,094	682,387
Use of prior year balances	-24,411	-24,411	-3,183	-3,183	——
Total, Environmental Restoration & Waste Management	593,686	583,341	588,346	575,911	682,387
Energy Assets Acquisition — Incremental Funding					
Waste management	——	*7,297*	——	*5,864*	*1,900*
Nuclear material and facility stabilization	——	*4,048*	——	*6,571*	*397*
Total, Energy Assets Acquisition	——	*11,345*	——	*12,435*	*2,297*
Total, Environmental Management plus construction	*593,686*	*594,686*	*588,346*	*588,346*	*684,684*

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY RESEARCH AND DEVELOPMENT ACTIVITIES

PROPOSED APPROPRIATION LANGUAGE

For expenses of the Department of Energy activities including the purchase[, construction] and acquisition of [plant and] capital equipment and other expenses necessary for energy supply, research and development, and uranium supply and enrichment activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101, et seq.), including [the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion;] purchase of passenger motor vehicles (not to exceed [24] 13 for replacement only), [$2,710,908,000] $2,999,497,000, to remain available until expended, of which $15,000,000 shall be derived by transfer from unobligated balances under "General Science and Research" originally available for Superconducting Super Collider termination activities, to be merged with this account and to be available for the time and purposes for which this account is available, and of which not to exceed $25,000 may be for official reception and representation expenses for transparency activities.

EXPLANATION OF CHANGE

The primary change is the deletion of references to construction which is proposed under its own appropriation, Energy Assets Acquisition appropriation. Other changes include the use of prior year balances from "General Science and Research", and making funds available for "official reception and representation."

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL MANAGEMENT

PROGRAM MISSION

The Environmental Management (EM) program is responsible for identifying and reducing risks and managing waste at sites where the Department carried out nuclear energy or weapons research and production activities. These past efforts resulted in radioactive, hazardous, and mixed waste contamination which requires remediation, stabilization, or some other type of action. This program is budgeted under six appropriation accounts: Defense Environmental Restoration and Waste Management, Energy Supply, Research and Development, and the Uranium Enrichment Decontamination and Decommissioning Fund, which represent the three appropriation structure EM used in the FY 1997 budget process; and National Defense Asset Acquisition, Energy Assets Acquisition, and Defense Environmental Management Privatization, which are three new appropriations introduced in the FY 1998 budget process. The FY 1998 request for Energy Supply, Research and Development is $682,387,000, an increase of ~$94 million over the FY 1997 appropriated amount. The majority of this increase is for accelerated cleanup activities at the Formerly Utilized Sites Remedial Action Program (FUSRAP) sites. EM manages and cleans up sites used for civilian, energy research, non-defense related programs under this appropriation. The non-defense EM program includes waste management functions; environmental restoration activities; and nuclear material and facility stabilization activities.

Program Emphasis

The program must comply with a significant number of legal requirements which result from 103 Departmental compliance agreements and a multitude of Federal, State, and local health and safety environmental statutes. Achieving a balance between requirements in existing agreements, risks associated with conditions at the various sites, and available resources will be a challenge requiring increased cost efficiency through better project performance and cost containment. The program's main challenge is to develop a strategy, within existing and projected technical and financial constraints, that enables the Department to meet its commitments to the American people.

The nuclear weapons complex generated waste, pollution, and contamination which pose unique problems, including unprecedented volumes of contaminated soil and water, radiological hazards from special nuclear material, and a vast number of contaminated structures. Factories, laboratories, and thousands of square miles of land were devoted to the successful enterprise of researching and producing tens of thousands of nuclear weapons. Much of this massive infrastructure, waste, and contamination still exists and is largely maintained, decommissioned, managed, and remediated by the EM program, which is sometimes referred to as the “cleanup program.” EM is responsible for managing and addressing the environmental legacy resulting from nuclear energy or weapons research; it has grown since its creation in 1989 in order to appropriately deal with the problems resulting from the nuclear weapons production era.

Today, the EM program is the world’s largest environmental stewardship program, covering over 130 sites and facilities in over 30 States and territories. Some of the program’s distinct characteristics include the presence of extremely hazardous materials in unstable conditions (i.e., high-level radioactive waste tanks and unstable Plutonium mixtures); extensive legally enforceable agreements with State and Federal regulators; and the presence of formal citizen advisory boards at the major DOE sites.

ENVIRONMENTAL MANAGEMENT PROGRAM MISSION, ENERGY SUPPLY RESEARCH AND DEVELOPMENT (continued)
Program Emphasis (continued)

Compliance
- Effectively prioritize and sequence work covered by Federal and State agreements to incorporate relative risk and cost effectiveness.

Mortgage Reduction
- Expedite demolition work, waste shipments, and permanent storage efforts to reduce future costs associated with growing surveillance and maintenance; deactivation costs associated with maintaining buildings and facilities that are ready for demolition; and, the high costs associated with temporarily storing and monitoring wastes that are ready for permanent disposal.

Risk Reduction
- Perform risk analyses in the areas related to public/worker safety and health, and environmental safety. The results of earlier analyses were a factor in developing prioritized requirements for FY 1998. The FY 1998 budget request continues to aggressively address and minimize urgent and near-term risk to workers, the public, and the environment.

Environmental Restoration
- Reduce and/or eliminate the most urgent risks associated with contaminated soils, groundwater, surface water, and buildings at DOE and designated private facilities.
- Conduct activities to protect human health and the environment from risks posed by inactive and surplus DOE facilities and contaminated areas by remediating, decontaminating and dismantling sites, facilities, and contaminated areas in the most cost-efficient manner.
- Emphasize near-term site completions, while maximizing beneficial reuse of site lands and facilities.

Waste Management
- Oversee ongoing regulatory compliance activities to enable DOE to comply with environment, safety and health requirements.
- Continue to operate the West Valley, New York Vitrification Plant for treatment of high-level waste.

Nuclear Material & Facility Stabilization
- Provide the means to achieve cost savings and efficiencies through deactivation of surplus facilities, which results in lower costs of maintaining facilities awaiting decontamination and decommissioning.
- Place the Fast Flux Test Facility in a hot standby status pending a scheduled December 1998 determination on the possible role of this reactor as a new tritium supply source in support of the Nation's nuclear weapons stockpile.
- Provide policy direction for landlord planning and budgeting, including reducing site infrastructure costs and managing workforce restructuring.

EM Performance Measures

EM has developed corporate-level performance measures to be used for both internal management and to meet external requirements. These performance measures are intended to focus the organization on accomplishing EM's mission and program outcomes, as well as those crosscutting areas essential to accomplishing program results effectively and efficiently (i.e., financial, safety and health, trust and confidence measures). While these measures are considered to be the core set of measures for EM, it is recognized that operations offices, sites, and project managers will also be assessing progress against milestones, cost and schedule variances, etc., to accomplish their project and contract work scope effectively and efficiently.

Waste Stored/Treated/Disposed

- Volume of waste treated by waste type (i.e., High-Level Waste, Transuranic, Mixed Low-Level Waste, Low-Level Waste) in cubic meters to reduce risk and cost.
- Volume of waste disposed or ready to be disposed by waste type in cubic meters to reduce risk and cost.
- Maintenance of safe and environmentally-compliant inventory (storage) by waste type in cubic meters, pending treatment and/or disposal.
- Development of partnerships with other DOE programs, stakeholders and regulators to find new and innovative ways of addressing waste management problems.

Release Sites Completed

- Number of assessments of release sites completed.
- Number of release sites completed overall.

Facilities Deactivated

- Number of facilities deactivated.
- Inventory of facilities by status (i.e., not yet deactivated and deactivated)

Facilities Decommissioned

- Number of assessments of facilities completed.
- Number of facilities completed overall.

Material Stabilized/Made Disposition Ready

- Quantity of material stabilized by material type (i.e., plutonium, uranium, and other nuclear material [in kg] and Spent Nuclear Fuel [SNF]).
- Inventory of materials by status (i.e., not yet stabilized, stabilized but not disposition ready, and disposition ready) and material type (i.e., plutonium, uranium, other nuclear material and SNF).
- Quantity of material made disposition ready by material type (i.e., plutonium, uranium, and other nuclear material and SNF).

Major Changes

- Re-Engineering: The Department has initiated a pilot program intended to evaluate opportunities to reduce the volume of newly generated waste and its associated management and disposal costs resulting from Departmental mission activities. Beginning in FY 1998, the Department will implement the Pilot Waste Management Re-Engineering Program at a limited number of sites, at which the responsibility for the newly generated waste management programs will be transferred from the Office of Environmental Management to the generating program. Throughout the implementation of the FY 1998 pilot, the regulatory accountability will remain with the program that currently holds the regulatory permits. In addition, EM will be responsible for any unavoidable funding shortfalls due to underestimates for FY 1998 waste generation.

  The Department expects that this re-engineered waste management structure will result in increased awareness on the waste generating organizations' part, thereby creating a financial incentive to minimize waste generation. Waste generating programs will be able to clearly track the true cost of their waste generation, as well as incorporate the associated costs within the formulation of the outyear budgets. To the extent that the programs minimize waste generation, the savings will be available to support increased mission activity. The impacts of this pilot arrangement will be carefully evaluated throughout FY 1998, and will provide the basis of the Administration's decision regarding the continuation and/or expansion of the effort in FY 1999 and beyond. The Pilot Waste Management Re-Engineering Program was initiated in response to several recommendations from several Departmental stakeholders, including the National Academy of Sciences and the Environmental Management Advisory Board.

- FUSRAP: Of particular note is the EM proposal to accelerate the cleanup at the FUSRAP sites. The current schedule is to be complete by FY 2006. The additional funding is requested to permit the significant completion of the existing FUSRAP sites by FY 2002. The EM goal is to complete FUSRAP by 2002, but EM will need to work with affected communities and regulators to meet this goal and to implement cleanup strategies, which are: 1) protect human health and environment; 2) consistent with landuse; and 3) sensitive to the use of innovative technology. The 'FY 1999 to Completion' funding is an estimate of the resources needed to achieve this goal. Cleanup activities that would be accelerated include: residential vicinity property cleanups at Maywood, New Jersey; pile removal and subsurface characterization at Wayne, New Jersey; final remediation actions at Tonawanda, New York and St. Louis, Missouri; and the initiation of cleanup activities at Luckey and Painesville, Ohio.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(dollars in thousands)

PROGRAM FUNDING PROFILE

Environmental Management

Activity	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
Corrective Activities	$4,339	$0	$0	$0	$0
Environmental Restoration	$359,559 a/	$328,000	$0	$328,000	$457,625
Waste Management	$181,197 b/	$184,218	($360) c/	$183,858	$153,004
Nuclear Material and Facility Stabilization	$73,002	$79,671	$0	$79,671	$71,758
Total, EM	$618,097	$591,889	($360)	$591,529	$682,387
Use of Prior Year Balances (Offset)	(24,411)	(3,543)	360	(3,183)	0
TOTAL, EM	***$593,686***	***$588,346***	***$0***	***$588,346***	***$682,387***

a/ Includes -$2,370K taken as a new B/A reduction for use of prior year balances
b/ Includes -$777K taken as a new B/A reduction for use of prior year balances
c/ Includes -$360K taken as a new B/A reduction for use of prior year balances

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL RESTORATION

PROGRAM MISSION

The ER program, within the Energy Supply, Research and Development appropriation account, supports remediation activities at a large number of sites contaminated from past civilian nuclear operations. This budget also includes two other major cleanup programs initiated in the late 1970's -- the Formerly Utilized Sites Remedial Action Program (FUSRAP) and the Uranium Mill Tailings Remedial Action (UMTRA) Program. The overall ER program, within the Environmental Management (EM) program, receives funding from three appropriation accounts: the Energy Supply, Research and Development appropriation account, referred to as the "Non-Defense" account; the Defense Environmental Restoration and Waste Management appropriation account, referred to as the "Defense" account; and the Uranium Enrichment Decontamination and Decommissioning (UE D&D) Fund appropriation account, referred to as the "UE D&D" account.

The overall mission of the ER program is to protect human health and the environment from risks posed by inactive and surplus Department of Energy (DOE)- owned and privately-owned sites, facilities, and contaminated areas. These sites, facilities, and contaminated areas must be remediated and decommissioned in the most cost-efficient and responsible manner possible in order to provide for future beneficial use. Program responsibilities include remediation, decommissioning efforts, support of compliance oversight, surveillance and maintenance (S&M), landlord functions, and a prudent amount of program management and technical support activities.

This budget request includes: funds to carry out activities that must be undertaken immediately to minimize or prevent significant risk to workers, the public, or the environment; activities required by current Federal, State, and local regulatory agreements (in place or in negotiation); and support of other legal requirements, and DOE Orders. Activities supported are explained in more detail in the Program Performance Summary which follows this introduction.

For additional information on the overall ER program, supported from the three appropriation accounts, please refer to the ER Program Mission statement for the "Defense" account. This introduction shows how the various activities funded from the three appropriation accounts fit together and identifies how performance is measured and progress achieved. Tables PM-1 through PM-6 (which immediately follow the ER Defense Program Mission statement) provide data that displays the status of the various ER program activities, cleanup versus assessment trends, and progress being achieved from a "National Perspective" regardless of appropriation account.

EM PROGRAM VISION:

The EM program has been collecting data to assimilate into a Ten Year Plan which will layout timetables to complete cleanup at most sites within the next decade. This Ten Year Plan is central to bridging efforts of the past few years to the types of cleanups and time frames EM will encounter through 2006. Major changes have taken place over the last three years to improve the pace of cleanup, manage projects more effectively, eliminate inefficiencies, and incorporate risk into decision-making. All of those efforts have made EM more successful at producing on-the-ground tangible results. Under the Ten Year Plan "vision," EM will complete cleanup at most sites within a decade, though treatment will continue for the few remaining waste streams at a small number of sites. This unifying vision will drive budget decisions, sequencing of projects, and actual actions taken to meet program objectives. This "vision" will be implemented in collaboration with regulators and stakeholders.

The EM vision will be guided by the following seven principles:

- Eliminate the most urgent risks
- Reduce mortgage and support costs to free up resources for further risk reduction
- Protect worker health and safety
- Reduce the generation of waste
- Create a collaborative relationship between DOE and its regulators and stakeholders
- Focus technology development on cost and risk reduction
- Integrate waste treatment and disposal across sites.

The overall ER Program is responsible for remediation of 132 geographic sites in 31 states and the territory of Puerto Rico. A graphical depiction can be found in Table PM-1, following the ER "Defense" Program Mission statement. The ER program responsibilities in the "Non-Defense" account include 88 geographic sites in 23 states. Of the 88 sites, three are jointly funded by the "Defense" and the "Non-Defense" account and one site is funded from all three appropriation accounts.

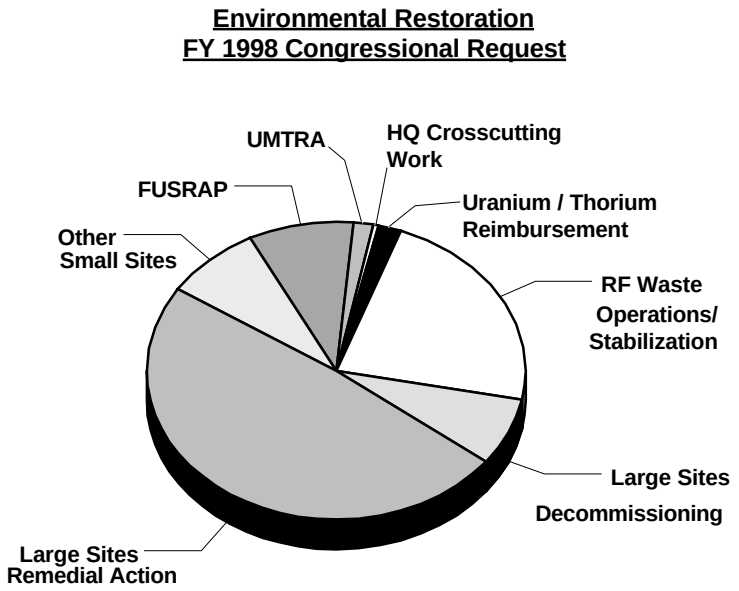
To provide maximum flexibility in addressing remediation efforts, all activities are budgeted under operating expenses and include capital equipment-type and construction-type activities. This is consistent with the manner in which ER activities were budgeted and approved by Congress in previous years. General crosscutting support efforts required for effective management and control of ER activities are also included in this budget.

PROGRAM SHIFTS - NEW PERFORMANCE MEASURES

Consistent with the ER Strategic Plan, the ER program has been subdivided into several Strategic Program Areas: UMTRA - 24 sites; FUSRAP - 46 sites; Other Small Sites - 47 sites; and 15 Large Sites composed of remedial action and decommissioning programs. Beginning in FY 1997, the ER program also includes the budget for the entire Rocky Flats, Colorado site. The ER Program activity also includes funding for reimbursement of Uranium/Thorium licensees for the Federal Government's share of their remediation costs; the Federal Contribution to the UE D&D account; and headquarters crosscutting activities.

The components of the overall ER program included in the FY 1998 request and their relative portion of that request are shown in the following table and pie chart. The ER "Non-Defense" remediation activities are found in all the components except for the Rocky Flats Waste Operations / Stabilization Efforts, Uranium/Thorium Reimbursement, and the Federal Contribution to the UE D&D appropriation account.

ER Components	FY 1996 Current Appropriation	FY 1997 Current Appropriation	FY 1998 Congressional Request
UMTRA	$66,746	$49,788	$33,778
FUSRAP	73,462	75,085	182,079
Other Small Sites	198,394	144,946	174,303
Large Sites Remedial Action	1,150,708	1,049,160	1,005,010
Large Sites Decommissioning	177,064	113,201	153,255
Rocky Flats Waste Operations/Stabilization Efforts	0	432,340	465,100
Uranium/Thorium Reimbursement	42,000	34,000	40,456
Federal Contribution to the UE D&D Appropriation Account	350,000	376,648	388,000
Headquarters Crosscutting Work	36,262	15,226	9,005
Request	**2,094,636**	**2,290,394**	**2,450,986**
UE D&D Account Offset	-350,000	-376,648	-388,000
Total Work Scope Requested	$1,744,636	$1,913,746	$2,062,986



NOTE: Reflects funding from the Defense, Non-Defense, and the UE D&D appropriation accounts.

The ER program has demonstrated significant cleanup progress in the UMTRA, FUSRAP, and Other Small Sites Strategic Program Areas. This has been achieved primarily by completion of remediation at numerous "release sites" and "facilities", ultimately leading to the completion of entire geographic sites each year. "Release sites" represent discrete areas of contamination at a particular site, and "facilities" are contaminated structures. Results in the Large Sites Remedial Action and Large Sites Decommissioning Program Areas are also measured by completion of "release sites" and "facilities", but the overall completion at these large geographic sites won't be achieved for some time. Performance is tracked in all Strategic Program Areas by measuring annual "release site" and "facility" completions.

ER Strategic Program Area	No. of Sites	No. of Release Sites	No. of Facilities	Total Environmental Restoration Program Summary/Description of Scope
UMTRA (Non-Defense)	24	48	0	• 24 geographic sites requiring both surface remediation and verification of compliance with groundwater standards. • Through FY 1996, surface remediation at 16 of the 24 geographic sites was completed.
FUSRAP (Non-Defense)	46	46	0	• 46 formerly utilized sites in 14 states that have been identified as part of the FUSRAP Program. • Through FY 1996, cleanup at 23 of the 46 geographic sites was completed.
Other Small Sites (Defense / Non-Defense)	47	1,356	199	• 47 sites have been classified as Other Small Sites based on estimated cost of completion of $150M or less. • These sites have relatively short project durations, small lifecycle costs, and are well defined. • Through FY 1996, 13 Other Small Sites have been completed (excluding long-term surveillance and monitoring) including the recent completions of the Oxnard facility in California, and the Inhalation Toxicology Research Lab in New Mexico. The 47 Other Small Sites are comprised of 1,356 release sites and 199 facilities. As of the end of FY 1996, 71% of all Other Small Site release sites (957) and 42% of all facilities (84) have been completed. • The objective of this category, which includes both Defense and Non-Defense efforts, is to reduce relative risk and demonstrate progress by completion of another 25 small sites (about 19% of total ER geographic sites) from FY 1995 to the end of FY 2000.
Large Sites* Remedial Action and Large Sites* Decommissioning	15	7,376	891	• 15 geographic sites have been classified as Large Sites based on estimated cost of completion and/or complexity, and 10 of the 15 Large Sites have decommissioning programs, specifically focused on facilities and structures. • Large Sites are the largest segment of Environmental Restoration responsibility and include sites with widely varied risk potential, possible large volumes of waste. They are typically driven by legal statutes and agreements. • The objectives of this category are to sequence work based on relevant attributes and maintain or reduce the current risk state at each site. • Over 7,376 release sites comprise the Large Sites component of the ER program. • Through FY 1996, 29% (2,149) release sites have been completed. • Decommissioning activities represent the largest potential for reducing fixed infrastructure costs and, therefore, reducing the outyear mortgage. Over 891 facilities comprise the Large Sites component of the ER program. Through FY 1996, 17% (155) facilities have been completed. • The objectives of this category are to reduce long-term mortgage, address high risks, and maintain cost-effective funding levels.
TOTAL	132	8,826	1,090	Excludes Rocky Flats Waste Operations/Stabilization efforts
TOTAL Release Site/Facilities		9,916		*Funded by the Defense, Non-Defense, and the UE D&D appropriation accounts

The ER Program Performance Summary for the "Non-Defense" account following this section provides additional program specific information and tables showing cleanup versus assessment trends, funding by major ER component, and geographic site completion data.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL RESTORATION - NON-DEFENSE

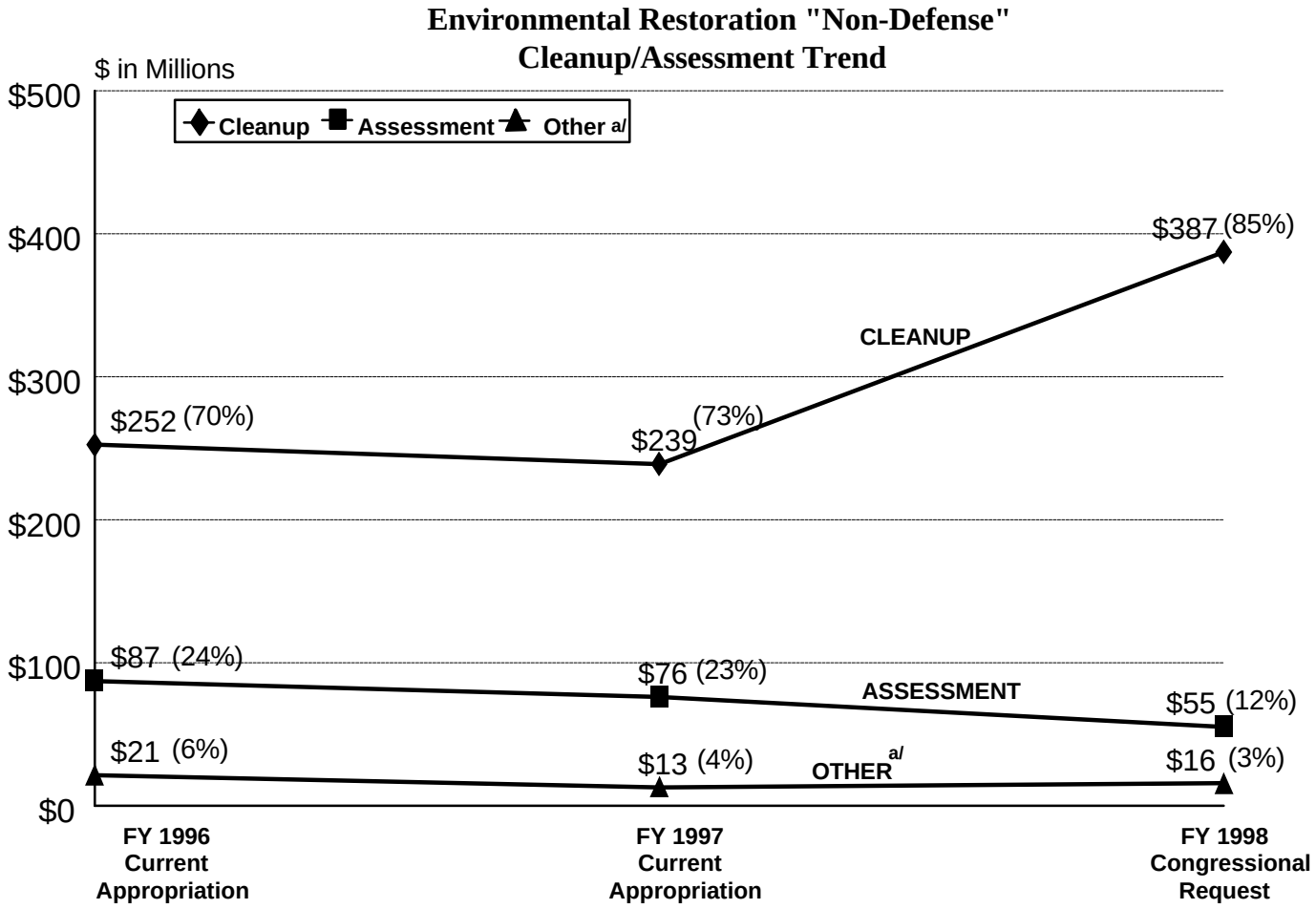
PROGRAM PERFORMANCE SUMMARY

The ER activities budgeted in the Energy Supply, Research and Development appropriation include remedial action activities, decommissioning efforts, S&M, landlord, compliance oversight activities, and a prudent amount of program management and technical support activities necessary to maintain the effective management of overall program efforts. Of the total 132 geographic sites in 31 states and one territory under the responsibility of the ER program, 88 geographic sites are contaminated from past Non-Defense related activities. The Non-Defense appropriation includes efforts in all five of the ER Strategic Program Areas, with 24 geographic sites in UMTRA-Surface and -Ground Water projects; 46 geographic sites in FUSRAP, 14 in the Other Small Sites category, and four in the Large Sites categories which have remedial action and decommissioning programs. Three of these geographic sites are jointly funded by the Defense and Non-Defense accounts, and are discussed in both budget presentations. One geographic site is funded by the Defense, Non-Defense, and the UE D&D accounts.

The following ND-1 through ND-3 tables provide specific "Non-Defense" information relating to assessment versus cleanup funding, overall fiscal year funding, components of the “Non-Defense” appropriation account, and geographic site completions.

TABLE ND-1
ENVIRONMENTAL RESTORATION NON-DEFENSE - FY 1998 CONGRESSIONAL BUDGET REQUEST

All ER efforts are pursued with the goal of ensuring efficiency and maximizing the use of funds to achieve results. The ER program has demonstrated this by continuing to increase the amount of funds spent on cleanup activities and focusing on streamlining assessment and characterization activities. The ER Non-Defense activities are a major part of this increased emphasis on cleanup.



a/ Other - consists of program management, landlord, surveillance and maintenance, etc.

TABLE ND-2
ENVIRONMENTAL RESTORATION NON-DEFENSE - FY 1998 CONGRESSIONAL BUDGET REQUEST

Components of the "Non-Defense" Environmental Restoration Program

ER Non-Defense Components	FY 1996 Current Appropriation	FY 1997 Current Appropriation	FY 1998 Congressional Request
UMTRA	$66,746	$49,788	$33,778
FUSRAP	73,462	75,085	182,079
Other Small Sites	98,752	70,576	86,001
Large Sites Remedial Action	97,053	111,853	120,637
Large Sites Decommissioning	20,589	11,449	26,932
Headquarters Crosscutting Work	2,957	9,249	8,198
Request	$359,559	$328,000	$457,625

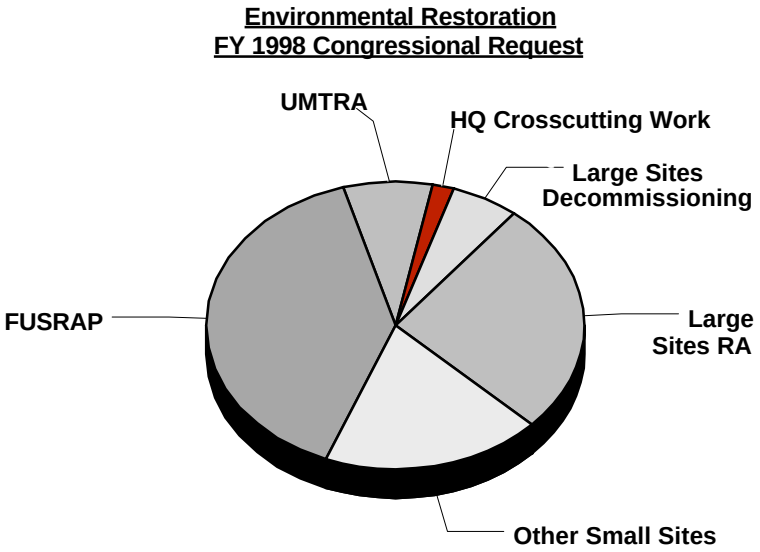
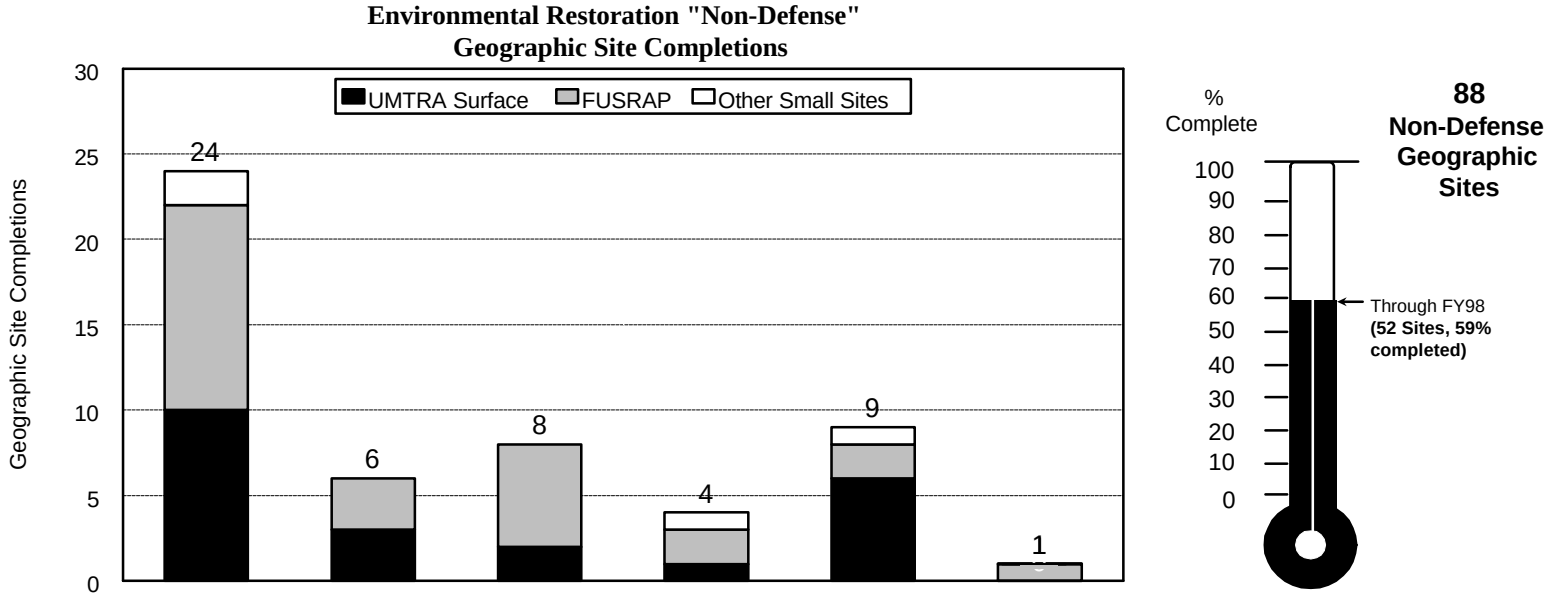


TABLE ND-3
ENVIRONMENTAL RESTORATION NON-DEFENSE - FY 1998 CONGRESSIONAL BUDGET REQUEST

In order to demonstrate annual progress, the chart below provides actual and planned geographic site completions. Large site completions will not be realized until after FY 2000. The ER program will have completed work at 59% of the Non-Defense geographic sites under its responsibility by the end of FY 1998.



	Pre-94	FY94	FY95	FY96	FY97	FY98	Outyears	Total
UMTRA Surface	10	3	2	1	6	0	0*	24 *
FUSRAP**	12	3	6	2	2	1	20	46
Other Small Sites	2	0	0	1	1	0	10	14 ***
Large Sites RA & Decomm.	0	0	0	0	0	0	4	4 ****
Total	24	6	8	4	9	1	34	88

* Belfield/Bowman sites are proposed for revocation of designation from the UMTRA Program, and will be deferred, per state agreement.
** Increased funding for each fiscal year as currently requested will result in accelerated completion of the FUSRAP program by the end of FY 2002.
*** Of the 14 sites, 2 sites are jointly funded by the Defense and the Non-Defense appropriation accounts.
**** Of the 4 sites, 1 site is jointly funded by the Defense and the Non-Defense accounts, and 1 site is funded by the Defense, Non-Defense, and the UE D&D accounts.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Dollars in Thousands)

ENVIRONMENTAL RESTORATION

PROGRAM FUNDING PROFILE

	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Request
Facilities and Sites					
Large Site Remedial Action	$97,053	$111,853	$0	$111,853	$120,637
Large Site Decommissioning	20,589	11,449	0	11,449	26,932
Other Small Sites	98,752	70,576	0	70,576	86,001
HQ Crosscutting Activities	2,957	9,249	0	9,249	8,198
Subtotal, Facilities & Sites	219,351	203,127	0	203,127	241,768
FUSRAP	73,462	75,085	0	75,085	182,079
UMTRA					
UMTRA-Surface	62,446	42,656	0	42,656	24,686
UMTRA-Groundwater	4,300	7,132	0	7,132	9,092
Subtotal, UMTRA	66,746	49,788	0	49,788	33,778
Total, Non-Def Environmental Restoration	***$359,559***	***$328,000***	***$0***	***$328,000***	***$457,625***

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL RESTORATION

PROGRAM FUNDING BY SITE

Program Activity	FY 1996 Current Approp	FY 1997 Original Approp	FY 1997 Adjustments	FY 1997 Current Approp	FY 1998 Request
ALBUQUERQUE OPERATIONS OFFICE					
Albuquerque Operations Office (NM)	$0	$0	$0	$0	$0
Grand Junction Projects Office (CO)	55,918	38,627	0	38,627	40,207
Inhalation Toxicology Research Institute (NM)	2,454	323	0	323	185
Los Alamos National Laboratory (NM)	1,606	0	0	0	0
UMTRA - Groundwater (VL)	4,300	7,132	0	7,132	9,092
UMTRA - Surface (VL)	62,446	42,656	0	42,656	24,686
Subtotal, Albuquerque	$126,724	$88,738	$0	$88,738	$74,170
CHICAGO OPERATIONS OFFICE					
Argonne National Laboratory (East) (IL)	$9,369	$8,500	$0	$8,500	$3,153
Argonne National Laboratory (West) (ID)	1,426	2,618	0	2,618	2,403
Brookhaven National Lab (NY)	20,222	15,114	0	15,114	22,000
Chicago Operations Office (IL)	724	1,460	0	1,460	37
Princeton Plasma Physics Lab (NJ)	439	500	0	500	546
Subtotal Chicago	$32,180	$28,192	$0	$28,192	$28,139
OAKLAND OPERATIONS OFFICE					
General Atomics (CA)	$3,000	$3,600	$0	$3,600	$4,000
General Electric (CA)	0	0	0	0	750
Geothermal Test Facility (CA)	1,450	0	0	0	0
Laboratory for Energy-Related Health Research (CA)	4,152	3,549	0	3,549	4,880
Lawrence Berkeley National Laboratory (CA)	3,261	3,187	0	3,187	3,990
Oakland Operations Office (CA)	1,645	841	0	841	720
Santa Susana Field Laboratory/ETEC (CA)	1,972	3,213	0	3,213	16,290
Stanford Linear Accelerator Center (CA)	1,033	995	0	995	995
Subtotal, Oakland	$16,513	$15,385	$0	$15,385	$31,625

PROGRAM FUNDING BY SITE; ENVIRONMENTAL RESTORATION -- NON DEFENSE (continued)

Program Activity	FY 1996 Current Approp	FY 1997 Original Approp	FY 1997 Adjustments	FY 1997 Current Approp	FY 1998 Request
OAK RIDGE OPERATIONS OFFICE					
FUSRAP (VL)	$73,462	$75,085	$0	$75,085	$182,079
Oak Ridge Associated Universities (TN)	350	0	0	0	0
Oak Ridge National Laboratory (TN)	30,648	30,544	0	30,544	50,396
Oak Ridge Operations Office (TN)	6,298	7,364	0	7,364	3,201
Oak Ridge Reservation (TN) (Off-Site)	322	61	0	61	172
Weldon Springs (MO)	53,085	65,950	0	65,950	67,500
Subtotal, Oak Ridge	$164,165	$179,004	$0	$179,004	$303,348
OHIO FIELD OFFICE					
Battelle Columbus Laboratories (OH)	$11,559	$3,163	$0	$3,163	$7,845
Mound Plant (OH)	1,061	0	0	0	0
Ohio Field Office (OH)	100	0	0	0	0
Subtotal, Ohio	$12,720	$3,163	$0	$3,163	$7,845
SAVANNAH RIVER OPERATIONS OFFICE					
Savannah River Site (SC)	$4,300	$4,269	$0	$4,269	$4,300
Subtotal, Savannah River	$4,300	$4,269	$0	$4,269	$4,300
HEADQUARTERS					
Headquarters (DC)	$2,957	$9,249	$0	$9,249	$8,198
Subtotal, Headquarters	$2,957	$9,249	$0	$9,249	$8,198
TOTAL, ENVIRONMENTAL RESTORATION	***$359,559***	***$328,000***	***$0***	***$328,000***	***$457,625***

ANL-E	Argonne National Laboratory-East
ANL-W	Argonne National Laboratory-West
BCL	Battelle Columbus Laboratory
BNL	Brookhaven National Laboratory
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
DOE	Department of Energy
D&D	Decommissioning
EE/CA	Engineering Evaluation/Cost Analysis
EM	Environmental Management
EPA	Environmental Protection Agency
ER	Environmental Restoration
ETEC	Energy Technology Engineering Center
FFA	Federal Facility Act
FUSRAP	Formerly Utilized Sites Remedial Action Program
GA	General Atomics
GJO	Grand Junction Office
HWCTR	Heavy Water Component Test Reactor
HWHF	Hazardous Waste Handling Facility
ITRI	Inhalation Toxicology Research Institute
LBNL	Lawrence Berkeley National Laboratory
LEHR	Laboratory for Energy-Related Health Research
LLTR	Large Leak Test Reactor
LLW	Low Level Waste
LMDL	Liquid Metal Development Laboratory
LTSM	Long-Term Surveillance and Maintenance
MSA	Materials Staging Area
NEPA	National Environmental Policy Act
ORAU	Oak Ridge Associated Universities
ORNL	Oak Ridge National Laboratory
ORR	Oak Ridge Reservation
OU	Operable Unit
PPPL	Princeton Plasma Physics Laboratory
PRAR	Post Remedial Action Report
RCRA	Resource Conservation & Recovery Act
RESRAD	Residual Radioactive Code Development
RMHF	Radioactive Materials Handling Facility
ROD	Record of Decision
RWQCB	Regional Water Quality Control Board
S&M	Surveillance and Maintenance
SCTL	Sodium Component Test Loop
SLAC	Stanford Linear Accelerator Center
SRS	Savannah River Site
SSFL	Santa Susana Field Laboratory
SWMU	Solid Waste Management Unit
SWTP	Site Water Treatment Plant
TCA	Trichloroethane
TCE	Trichloroethylene
TRU	Transuranic Waste
TSA	Temporary Storage Area
UMTRA	Uranium Mill Tailings Remedial Action
VP	Vicinity Property
WAG	Waste Area Group

U.S. DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

ALBUQUERQUE

I. Mission Supporting Goals and Objectives

The Environmental Restoration (ER) Program, managed through the Albuquerque Operations Office, supports activities at three sites in the three states. This includes the Inhalation Toxicology Research Institute (ITRI) in New Mexico; the Grand Junction Office (GJO) site in Colorado, and the Monticello millsite cleanup in Utah. Funding for efforts completed in FY 1996 is also included for non-defense decommissioning efforts at the Los Alamos National Laboratory (LANL) in New Mexico and for remediation efforts at the Oxnard, California Site.

At the ITRI, located in Albuquerque, New Mexico, studies have been conducted on the health effects of inhaling potentially hazardous airborne materials that might be found in industry, the environment, or the home. Major ER activities have focused on remediation of seven underground storage tanks and underground pipeline, along with 3,000 cubic yards of contaminated soil from the diesel oil release/spill area at the site, and the remediation of 6000 cubic yards of radioactive soil, concrete and metal structures from the Hot Ponds and Sewage Lagoon sites. Initial assessment activity began in FY 1991, and remedial activity was completed in FY 1996, including remediation of all nine release sites.

The GJO is located immediately south of the City of Grand Junction, Colorado, on a 61.7-acre site adjacent to the Gunnison River. The GJO supports the ER Program in the areas of site characterization, project integration and coordination, remedial design, remedial action, independent verification, decontamination and dismantlement (D&D), and long-term surveillance and maintenance (LTSM). Current GJO ER project assignments include the Monticello Projects, the GJO Remedial Action Project, the Long-Term Surveillance and Maintenance Program, the Uranium Leasing Project, the GJO Waste Management Program, the GJO Landlord Program, and the Uranium Mill Tailing Remedial Action (UMTRA) Ground Water Project, which is addressed separately (see the Program Performance Summary for the UMTRA Ground Water Project later in this submission for further details). The GJO Remedial Action Project is comprised of 19 facilities and two release sites. Through FY 1998, 18 facilities and one release site are forecast for completion.

Environmental restoration efforts at and around Monticello, Utah, include remedial action on a 110-acre inactive Government-owned uranium/vanadium mill processing site and the adjacent 30 acres of private and Department of Energy (DOE)-owned peripheral properties, assessment of surface and ground water contamination near Monticello, and remediation of approximately 400 private properties (referred to as "Vicinity Properties") which have been contaminated by mill tailings from the Monticello millsite. Monticello is comprised of 16 release sites and through FY 1998, two release sites are forecast for completion.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Large Site Decommissioning	$ 1,606	$ 0	$ 0	$ 0	0
Other Small Sites	58,372	38,950	40,392	1,442	4
Total, Albuquerque	$ 59,978	$ 38,950	$ 40,392	$ 1,442	4

III. Performance Summary

Large Site Decommissioning:	**FY 1996**	**FY 1997**	**FY 1998**
• Completed decommissioning at all remaining non-defense LANL facilities.	$ 1,606	$ 0	$ 0
Total Large Site Decommissioning, Albuquerque	**1,606**	**0**	**0**

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct remediation activities at ITRI. - In FY 1996, completed remediation activities and shipped all waste at ITRI. - In FY 1997, carry out ground water monitoring efforts and project closeout activities. - In FY 1998, continue ground water monitoring efforts.	2,454	323	185
• Conduct remediation activities at Oxnard, CA site. - In FY 1996, completed all remediation activities (using prior year funds).	0	0	0
• Carry out Monticello millsite remediation activities. - In FY 1996, completed on-site repository construction for mill tailings. - In FY 1997, initiate millsite remediation. - In FY 1998, complete millsite remediation of high risk contamination and initiate construction of repository cover.	29,954	22,419	15,685
• Carry out Monticello vicinity and peripheral property remediation activities. - In FY 1996, completed 11 vicinity property reports and continued remediation activities on vicinity and peripheral properties. - In FY 1997, complete remedial action on several peripheral properties. - In FY 1998, complete remedial action on several peripheral properties.	$ 2,318	$ 2,700	$ 1,827

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct various Monticello Surface and Ground Water Project activities. - In FY 1996, performed characterization and design for Monticello Surface and Ground Water Project. - In FY 1997, prepare and submit draft Monticello Surface and Ground Water Project Remedial Investigation/Feasibility Study and interim Record of Decision (ROD) to the Environmental Protection Agency (EPA) and State of Utah for review; initiate remediation of the lower Montezuma Creek Canyon. - In FY 1998, complete remediation of contaminated sediments in the Montezuma Creek Canyon (includes $40K for payment for a stipulated penalty assessed against the Monticello Project).	1,943	1,133	5,842
• Provide support of GJO activities. - In FY 1996, provided overall program management support and contractor transition costs. - In FY 1997, provide for waste management/landlord activities and overall program management support. - In FY 1998, provide for waste management/landlord activities and overall program management support.	16,626	7,090	8,095
• Provide for decontamination/demolition of buildings at GJO. - In FY 1996, completed activity at six buildings. - In FY 1997, complete activity at three buildings. - In FY 1998, complete activity at two buildings.	3,780	2,950	1,454
• Provide support for the Uranium Lease Program. - In FY 1996, completed environmental assessment, issued a Findings of No Significant Impact document; restored one reclaimed lease track to public domain. . - In FY 1997, begin reclamation activities and continue required support for leasing activities. - In FY 1998, complete reclamation activities and continue leasing support and reclaim lease tracts where no lease holder is liable.	300	900	1,312
• Provide for codisposal costs of material at the UMTRA-Surface Cheney Disposal Site.	$ 0	$ 0	$ 4,200
• Carry out LTSM Program activities. - In FY 1996, completed annual inspection of Title I and 151(c) sites assigned to the Program and prepared for transfer of four Title II sites. - In FY 1997, continue LTSM activities. - In FY 1998, continue LTSM activities	997	1,435	1,792
Total Other Small Sites, Albuquerque	**58,372**	**38,950**	**40,392**

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
TOTAL, ALBUQUERQUE	**$ 59,978**	**$ 38,950**	**$ 40,392**

Explanation of Funding Changes FY 1997 to FY 1998:

Other Small Sites:

• Additional funding is required to support an increased number of Title I and II sites assigned to the LTSM program.	$	357
• Uranium Leasing Reclamation activities are scheduled to begin in FY 1997 and will be completed in FY 1998.		412
• Provide for codisposal of contaminated materials at the UMTRA-Surface Project Cheney disposal site.		4,200
• Conduct site infrastructure maintenance at the GJO site.		1,005
• Remediation costs at ITRI reduced following completion of project closeout activities.		-138

Explanation of Funding Changes FY 1997 to FY 1998:

Other Small Sites: (Continued)

• Reduced funding is required to provide for D&D activities at a decreased number of buildings at GJO.	$	-1,496
• Completion of Monticello millsite remediation activities in FY 1998 will reduce costs, along with a reduction in the number of peripheral properties under remediation, and the transition from the assessment phase for various MSG Project activities.		-2,898
Subtotal		1,442
Total Funding Change, Albuquerque	**$**	**1,442**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

ALBUQUERQUE / UMTRA-SURFACE

I. Mission Supporting Goals and Objectives

Public Law 95-604, "The Uranium Mill Tailings Radiation Control Action of 1978," authorizes the Department to conduct a mill tailings stabilization and control program at 24 former uranium ore processing sites that are contaminated with tailings and other byproducts of uranium mining and milling operations and an estimated 5,000 associated vicinity properties which became contaminated by windblown waste or debris or contaminated materials used in construction or landscaping. Each processing site is comprised of 1 release site. Currently, at the request of the State of North Dakota, steps are being taken to revoke the designation of the two North Dakota sites from the UMTRA Program. The UMTRA-Surface Project activity is managed through the Albuquerque Operations Office and supports efforts in ten states (Arizona, Colorado, Idaho, New Mexico, North Dakota, Oregon, Pennsylvania, Texas, Utah, and Wyoming) and with two Indian tribes. Remedial action has been completed for 16 of the 24 former uranium ore processing sites as of the end of FY 1996. Four additional sites were completed in the first quarter of FY 1997. The two remaining sites will be completed by the end of FY 1997. The UMTRA-Surface Project is a cost-shared project with the Federal Government paying 90 percent of the remedial action cost and the States paying ten percent. When the sites are on Indian lands, the Department pays the entire cost of the remedial action.

The Uranium Mill Tailings Remedial Action Amendments Act of 1988 (P.L. 100-616) extended the Department's authority to conduct remedial actions at the designated sites through the end of FY 1994, and additional legislation extended that date to the end of FY 1996. Public Law 104-259, signed by the President on October 9, 1996, provides a final extension through FY 1998, that will allow orderly termination of the Surface Project. It also allows the Cheney disposal site in Grand Junction, CO, to remain open for up to 25 years to accept vicinity property or ground water wastes from Title I sites and vicinity property (VP) material from the Monticello, Utah Project after the Monticello cell closes.

ENVIRONMENTAL RESTORATION - NON-DEFENSE, ALBUQUERQUE / UMTRA-SURFACE (Continued)

II. Funding Schedule

Site/State	FY 1996	FY 1997	FY 1998	$ Change	% Change
Ambrosia Lake, NM	$ 544	$ 139	$ 0	$ -139	-100
Canonsburg, PA	178	0	0	0	0
Durango, CO	418	0	0	0	0
Falls City, TX	979	86	0	-86	-100
Grand Junction, CO	13,428	12,605	17,021	4,416	35
Green River, UT	264	0	0	0	0
Gunnison, CO	2,438	873	165	-708	-81
Lakeview, OR	0	0	0	0	0
Lowman, ID	10	0	0	0	0
Maybell, CO	8,032	4,305	1,111	-3,194	-74
Mexican Hat, UT	581	336	0	-336	-100
Monument Valley, AZ	203	9	0	-9	-100
Naturita, CO	12,308	12,305	4,877	-7,428	-60
Rifle, CO (2 Sites)	8,347	1,082	311	-771	-71
Riverton, WY	0	0	0	0	0
Salt Lake City, UT	934	412	0	-412	-100
Shiprock, NM	224	16	0	-16	-100
Slick Rock, CO (2 Sites)	9,739	8,844	1,201	-7,643	-86
Spook, WY	0	0	0	0	0
Tuba City, AZ	3,819	1,644	0	-1,644	-100
Total UMTRA-Surface	$ 62,446	$ 42,656	$ 24,686	$ -17,970	-42

III. Performance Summary

UMTRA-Surface:	**FY 1996**	**FY 1997**	**FY 1998**
• Complete remedial action at the Gunnison, Colorado Site.	$ 2,438	$ 0	$ 0
• Carry out remediation efforts at six sites in Colorado; Maybell, Naturita, Rifle (two sites) and Slick Rock (two sites). - In FY 1996, continued remediation efforts at all six sites. - In FY 1997, complete remediation at all six sites; complete additional VPs and accelerate schedules where slippage has occurred. - In FY 1998, closeout remedial action subcontracts and prepare completion reports.	38,426	26,536	1,974
• Continue surveillance, certification, and licensing activities on all sites.	8,154	3,515	2,924
• Provide for Grand Junction, CO site activities. - In FY 1996, completed remedial action at 67 VPs and continued operation and maintenance activities at the Cheney disposal cell. - In FY 1997, complete remedial action at six VPs and continue operation and maintenance activities at the Cheney disposal cell. - In FY 1998, complete remedial action of all remaining VPs; continue operation and maintenance activities at the Cheney disposal cell; and shift responsibility for the Cheney disposal cell to the GJO LTSM Program, effective at the end of FY 1998.	13,428	12,605	12,678
• Complete closeout of prime contracts; finalize cooperative agreements; settle claims; and perform all remaining project termination activities.	0	0	7,110
Total, UMTRA-Surface	**$ 62,446**	**$ 42,656**	**$ 24,686**

Explanation of Funding Changes FY 1997 to FY 1998:

UMTRA-Surface:

• Reduced funding is in accordance with planned completion of the UMTRA-Surface Project, with all processing site remedial actions scheduled for completion in FY 1997. The remaining activities in FY 1998 include VP remediation in Grand Junction, CO, completion of site licensing, and project closeout efforts.	$	-17,970
Total Funding Change, UMTRA-Surface	**$**	**-17,970**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

ALBUQUERQUE / UMTRA-GROUND WATER

I. Mission Supporting Goals and Objectives

The UMTRA-Ground Water Project will carry out additional characterization and compliance efforts, not covered by the UMTRA-Surface project, at 24 designated uranium mill tailings sites. Each mill tailings site is comprised of a ground water release site The Project is currently planning on addressing the compliance at only 22 sites pending revocation of the designation of the two sites in North Dakota at the State's request. Like UMTRA-Surface, the project was authorized by Public Law 95-604. Through FY 1998, one release site is forecast for completion.

Public Law 100-616 authorized an unlimited time period for conducting ground water compliance activities. The UMTRA-Ground Water Project is managed by GJO, which is part of the Albuquerque Operations Office. Where remedial action activities are required for compliance, the Department will pay 90 percent of the costs; the States will pay ten percent. When sites are on Indian lands, the Department is responsible for the entire cost of the compliance activity.

ENVIRONMENTAL RESTORATION - NON-DEFENSE, ALBUQUERQUE / UMTRA-GROUND WATER (Continued)

II. Funding Schedule

Site/State	FY 1996	FY 1997	FY 1998	$ Change	% Change
Ambrosia Lake, NM	$ 10	$ 29	$ 159	$ 130	448
Canonsburg, PA	47	272	116	-156	-57
Durango, CO	58	22	458	436	1,982
Falls City, TX	323	337	274	-63	-19
Grand Junction, CO	115	223	537	314	141
Green River, UT	6	16	18	2	13
Gunnison, CO	14	37	632	595	1,608
Lakeview, OR	18	26	253	227	873
Lowman, ID	8	0	0	0	0
Maybell, CO	14	37	879	842	2,276
Mexican Hat, UT	91	170	59	-111	-65
Monument Valley, AZ	222	987	894	-93	-9
Naturita, CO	16	40	38	-2	-5
Rifle, CO (2 Sites)	204	295	651	356	121
Riverton, WY	844	370	631	261	71
Salt Lake City, UT	172	120	97	-23	-19
Shiprock, NM	1,197	1,700	942	-758	-45
Slick Rock, CO (2 Sites)	8	247	44	-203	-82
Spook, WY	56	288	88	-200	-69
Tuba City, AZ	877	1,916	2,322	406	21
Total UMTRA-Ground Water	$ 4,300	$ 7,132	$ 9,092	$ 1,960	27

III. Performance Summary

UMTRA-Ground Water:	**FY 1996**	**FY 1997**	**FY 1998**
• Complete the Programmatic Environmental Impact Statement; publish the ROD.	$ 150	$ 20	$ 0
• Completed administrative closeout efforts for the Lowman, ID Site.	8	0	0
• Conduct activities at the Rifle, CO (two sites) and Riverton, WY sites. - In FY 1996, initiated interim actions and site investigations. - In FY 1997, complete interim actions and continue site investigations. - In FY 1998, complete site investigation at Riverton, WY and continue site investigation efforts at Rifle, CO (two sites).	1,006	664	1,282
• Conduct activities at Maybell, CO; Spook, WY; and Mexican Hat, UT sites. - In FY 1996, completed site investigations. - In FY 1997, complete preparation of National Environmental Protection Act (NEPA) documentation. - In FY 1998, implement compliance strategies.	155	493	1,026
• Carry out activities at the Ambrosia Lake, NM; Falls City, TX; and Canonsburg, PA sites. - In FY 1996, conducted site investigation at Falls City and continued monitoring at Ambrosia Lake, NM, and Canonsburg, PA. - In FY 1997, conduct site investigations at Ambrosia Lake and Canonsburg. - In FY 1998, complete NEPA documentation.	366	637	549
• Conduct activities at the Monument Valley, AZ and Tuba City, AZ sites. - In FY 1996, conducted site investigations. - In FY 1997, complete site investigations. - In FY 1998, complete NEPA documentation.	1,358	2,894	3,216

UMTRA-Ground Water:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct activities at the Durango, CO; Gunnison, CO; Grand Junction, CO; Salt Lake City, UT; Green River, UT; and Shiprock, NM sites. - In FY 1996, conducted site characterization at Salt Lake City, Shiprock and Grand Junction; continued monitoring efforts at all sites. - In FY 1997, conduct site characterizations at all sites except Salt Lake City; continue monitoring efforts. - In FY 1998, conduct site characterizations at all sites except Salt Lake City; continue monitoring efforts.	$ 1,216	$ 2,112	$ 2,684
• Continue monitoring activities at the Slick Rock, CO (two sites); Naturita, CO; and Lakeview, OR sites.	41	312	335
TOTAL, UMTRA-Ground Water	**$ 4,300**	**$ 7,132**	**$ 9,092**

Explanation of Funding Changes FY 1997 to FY 1998:

UMTRA-Ground Water:	
• Activities are increasing as the UMTRA-Ground Water Project begins implementing compliance strategies to comply with ground water standards.	$ 1,960
Total Funding Change, UMTRA-Ground Water	**$ 1,960**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

CHICAGO

I. Mission Supporting Goals and Objectives

The ER program managed through the Chicago Operations Office supports activities at six sites in six states. These sites include Argonne National Laboratory - East (ANL-E) in Illinois; the Argonne National Laboratory - West (ANL-W) in Idaho; the Princeton Plasma Physics Laboratory (PPPL) in New Jersey; the Piqua site in Ohio; the Hallam site in Nebraska; and the Brookhaven National Laboratory (BNL) in New York. ANL-E is comprised of 432 release sites and 87 facilities, ANL-W has 37 release sites and one facility, PPPL has seven release sites, Hallam has one facility, Piqua has one facility, and BNL has 65 release sites. Through FY 1998, ANL-E will complete remediation at approximately 415 release sites and 42 facilities, ANL-W will complete remediation at approximately 32 release sites, and BNL will complete remediation at approximately 12 release sites.

The primary mission of the facilities under the Chicago Operations Office is research, development, and demonstration for DOE energy research and nuclear energy programs. This includes support of the nation's advanced reactor program and research on the fundamental properties of matter; physical, life, environmental sciences; magnetic confinement fusion and high-energy physics. By-products of this mission include transuranic waste, low-level waste, hazardous waste, and mixed waste (radioactive and hazardous combined). The Chicago Operations Office's facilities are aging, and many include former waste disposal sites that need to be assessed according to today's standards to determine the extent of environmental contamination and the need for remediation.

The Chicago Operations Office manages, coordinates, tracks, and assists in the implementation of the ER program among the various sites. Chicago also administers the Agreement-in-Principle with the State of New York. Major legal drivers include Resource Conservation & Recovery Act (RCRA), Comprehensive Environmental Response Compensation and Liability Act (CERCLA), state laws, and Federal Facility Agreements (FFAs) among DOE, EPA, and the State of New York for BNL and the State of Idaho for ANL-W.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Large Site Remedial Action	$ 20,222	$ 15,114	$ 22,000	$ 6,886	46
Other Small Sites	11,958	13,078	6,139	-6,939	-53
Total, Chicago	$ 32,180	$ 28,192	$ 28,139	$ -53	<1

III. Performance Summary

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct assessment activities at BNL to comply with the FFA. - In FY 1996, completed assessment efforts and began design activities at the Central Steam Facility (OU 4); continued assessments at the Sewage Treatment Plant (OU 5), and the Waste Management Areas, Landfills (OU 1); began assessments at the Potable/Supply Wells, Spills (OU 3) and the Graphite Research Reactor and Scrapyard (OU 2); and continued site-wide characterization activities. - In FY 1997, complete assessment at the Agricultural Field/ethylene dibromide (formerly part of OU 1); continue site-wide characterization activities; and continue assessments at the Waste Management Areas, Landfills; the Graphite Research Reactor and Scrapyard; the Sewage Treatment Plant; and the Potable/Supply Wells, Spills. - In FY 1998, complete assessments at the Sewage Treatment Plant; the Waste Management Areas, Landfills; the Graphite Research Reactor and Scrapyard; and the Potable/Supply Wells, Spills; and continue site-wide characterization activities.	$ 12,198	$ 3,822	$ 1,637
• Conduct remediation activities at BNL to reduce risk and comply with the FFA. - In FY 1996, completed the cesspool interim action and installation of the cap on the current landfill; continued installation of ground water treatment project systems; and initiated capping of the former landfill and began installation of drinking water hookups. - In FY 1997, complete installation and begin operation of ground water treatment project system, final installation of drinking water hookups, and complete capping of the former landfill; begin interim action for removal of buried waste; and initiate remediation of the Central Steam Facility. - In FY 1998, accelerate interim action for removal of buried waste; continue ground water treatment activities, and remediation of the Central Steam Facilities; and begin remediation of the Agricultural Field/ethylene dibromide.	8,024	11,292	20,363
Total Large Site Remedial Action, Chicago	**20,222**	**15,114**	**22,000**

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Carry out activities at the ANL-W Waste Area Group (WAG) 9 to assess and reduce risk and comply with the FFA. - In FY 1996, completed assessment of Burn Pit OU; completed the industrial Waste System removal; and continued characterization efforts. - In FY 1997, complete interim actions at the EBR II Transformer Yard and Leach Pit; continue characterization; and begin design for D&D of the Central Liquid Processing Area. - In FY 1998, complete assessment and begin remediation and continue design for D&D of the Central Liquid Processing Area.	$ 1,426	$ 2,618	$ 2,403
• Provided for crosscutting EM support activities, which were Headquarters managed. - Headquarters-managed crosscutting requirements vary from year to year and site to site, and are determined during year of execution.	2,732	0	0
• Provided oversight, monitoring, and technical support; continued LTSM to maintain contaminated facilities in a safe condition.	574	1,460	37
• Conduct activities at the PPPL to assess and reduce risk and comply with the Memorandum of Understanding. - In FY 1996, completed removal of contaminated soil and continued characterization activities. - In FY 1997, complete removal of contaminated soil and characterization of Sites C/D and continue assessment of Sites A/B. - In FY 1998, initiate remediation at Sites C/D and complete characterization of Sites A/B.	439	500	546
• Continue assessment activities to assess and reduce risk and comply with RCRA permit at ANL-E, with completion of efforts in FY 1997.	3,095	1,038	0

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct remediation activities at ANL-E to reduce risk and comply with the RCRA permit. - In FY 1996, completed the storage vault interim action, competed the site-wide closure of abandoned wells, and installed a barrier to prevent contaminated ground water movement off-site; completed transfer of 63 gloveboxes and M-Wing Hot Cell buildings to Landlord program; continued D&D of the CP-5 Reactor and continued surveillance and maintenance (S&M); and continued lime sludge removal. - In FY 1997, complete barrier to off-site ground water seep, and waste removal in the Solid Waste Disposal Area; begin D&D of Building 310 Tanks; complete removal of the CP-5 Reactor Vessel and final D&D of the Fast Neutron Generator and the Janus Reactor; continue D&D of the CP-5 Reactor; and continue S&M. - In FY 1998, complete removal of the CP-5 Reactor Rod Storage area and Hot Cell; continue D&D of CP-5 Reactor and Building 310 Tanks; and continue S&M.	$ 3,692	$ 7,462	$ 3,153
Total Other Small Sites, Chicago	**11,958**	**13,078**	**6,139**
TOTAL, CHICAGO	**$ 32,180**	**$ 28,192**	**$ 28,139**

Explanation of Funding Changes FY 1997 to FY 1998:

Large Site Remedial Action:

• Remedial action activities at the BNL increased.	$	6,886
Subtotal		6,886

Other Small Sites:

• ANL-E assessment activities are concluding and D&D activities at the Building 310 Tanks, 60" Cyclotron, and Building 301 Hot Cells will be delayed.	-5,347
• The need for interim actions at ANL-W have been reduced.	-215
• Contractor technical support for Chicago Operations office efforts have been curtailed.	-1,423
• Initiate remediation of Site C/D at the PPPL.	46
Subtotal	-6,939
Total Funding Change, Chicago	**$ -53**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

OAKLAND

I. Mission Supporting Goals and Objectives

The ER Program managed through the Oakland Operations Office supports activities at seven locations in the State of California. These sites include the Lawrence Berkeley National Laboratory (LBNL), the Energy Technology Engineering Center (ETEC), the General Electric Vallecitos Nuclear Center, the General Atomics (GA) facility, the Laboratory for Energy-Related Health Research (LEHR), the Stanford Linear Accelerator Center (SLAC), and the Geothermal Test Facility.

The 130-acre LBNL is located adjacent to the University of California in Berkeley. LBNL conducts a wide variety of energy-related research activities for the Department, including energy, environment, physics, transportation, computers, biology, and medicine. Past practices have left radioactive and hazardous contaminants in the soil and ground water. There have been 159 release sites identified at the LBNL site, of which 104 have received a No Further Investigation Status. Through FY 1998, three additional release sites are forecast for completion. ER activities at LBNL primarily focus on characterization and remediation of heavy metals and solvent-contaminated soil and ground water and the RCRA closure of an existing Hazardous Waste Handling Facility (HWHF).

The Santa Susana Field Laboratory (SSFL) is a 2,700 acre site located in Simi Valley, California, and is owned and operated by Rockwell International (RI). Approximately 90 acres of the site has been furnished to the Department by Rockwell for the ETEC, which provided management, engineering, and project oversight on a wide range of Departmental programs involving the testing of nonradioactive components. Major ER focus will be on ground water assessments and cleanup, within Area IV; remediation of RCRA Facility Assessment identified Solid Waste Management Units (SWMUs); and cleanup of ETEC facilities. These facilities must be decontaminated for eventual release for unrestricted use. ETEC is comprised of 32 facilities and seven release sites. Through FY 1998, 22 facilities and all seven release sites are projected for completion.

The General Electric site is privately-owned and is located near Pleasanton, California. ER activities will focus on cleanup of a High Level Hot Cell constructed in 1958 for post-irradiation examination of uranium fuel and irradiated reactor components and a Glove Box Enclosure installed in 1968 for emission spectrograph analysis of uranium, both supporting primarily Government-funded nuclear programs. The General Electric site is comprised of two facilities.

The GA site is privately-owned and is located near San Diego, California. This site has maintained and operated a Hot Cell Facility for over 30 years to conduct both Government and commercially funded nuclear research and development. ER efforts will focus on cleanup of the Hot Cell Facility and surrounding contaminated soils. Following cleanup, the site will be released by the Nuclear Regulatory Commission for unrestricted use by General Atomics. The GA site is comprised of one facility.

I. Mission Supporting Goals and Objectives (Continued)

The LEHR site is located at the University of California, Davis. Research at the laboratory originally focused on the health effects from chronic exposures to radionuclides using animal subjects to simulate radiation effects on humans. DOE terminated the research program and closed the laboratory in 1988. ER activities focus on cleaning up DOE areas of site contamination for release to the University of California, Davis, without radiological restrictions. The LEHR site is comprised of four release sites and seven facilities. All release sites (four) and facilities (seven) are forecast to be completed by FY 1998.

The SLAC site is a 426-acre site located at Stanford University in California. It is managed under contract between the Department and Stanford University where theoretical research in high-energy particle physics is conducted. Due to routine maintenance operations associated with the accelerator, certain hazardous waste streams have developed including waste oils, waste solvents, polychlorinated biphenyls contaminated soils, aqueous metals, and wastewater treatment sludge. ER efforts focus on cleanup of numerous polychlorinated biphenyls contaminated soil sites and several solvent-contaminated ground water sites. The SLAC site is comprised of eight release sites. Five release sites are forecast to be completed by FY 1998.

The Geothermal Test Facility is an 82 acre site located 20 miles east of El Centro, California. The site was formerly used by DOE to perform studies for geothermal power. The site is located on property owned by the Bureau of Land Management over which the DOE has a right-of-way agreement. The Geothermal Test Facility is comprised of four facilities and two release sites. Through FY 1998, one release site is forecast to be completed. The facility and cleanup responsibility is for the removal of approximately 12,000 cubic yards of brine residue and contaminated soil (arsenic contamination NORM [Naturally Occurring Radioactive Material] component) from a six-acre brine pond. A work order issued by the California Regional Water Quality Control Board (RWQCB) requires remediation of the site by DOE.

The Oakland Operations Office manages, coordinates, tracks, and assists in the implementation of the ER Program among the multiple California sites. In addition, the Oakland Operations Office manages and implements grants for the State of California oversight activities. Major legal drivers at Oakland sites include RCRA, the Toxic Substances Control Act, the California Porter-Cologne Act, Nuclear Regulatory Commission license termination requirements, and the Clean Water Act.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Other Small Sites	$ 16,513	$ 15,385	$ 31,625	$ 16,240	106
Total, Oakland	$ 16,513	$ 15,385	$ 31,625	$ 16,240	106

III. Performance Summary

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Perform cleanup of the Brine Pond at the Geothermal Test Facility. - In FY 1996, RWQCB required cleanup was initiated. - In FY 1997, all removal actions will be completed (using prior year funds).	$ 1,450	$ 0	$ 0
• Provide direct support to the Oakland Operations Office. - In FY 1996, required project management was provided. - In FY 1997, support for cost estimating, reporting, and technical review efforts will be provided. - In FY 1998, funds will not be provided for this activity.	1,639	841	0
• Conduct site-wide activities at the Lawrence Berkeley National Laboratory. - In FY 1996, continued site-wide investigative work; installed and operated three new ground water treatment interim corrective measure systems and continued operation of four other interim corrective measure; continued program management operations, and quarterly sampling, data management and reporting efforts as required by RCRA and State Regulators. - In FY 1997, continue site-wide investigative work; complete the RCRA Facility Investigation report and site-wide risk assessment and draft corrective measure plan; complete two new interim corrective measures and continue operation of seven others; complete HWHF closure plans and initiate HWHF assessment activities and; continue program management and quarterly sampling, data management and reporting as required by RCRA and State Regulators. - In FY 1998, complete site-wide investigative work, and initiate efforts on the Corrective Measures Study; continue maintenance and operation of corrective measure ground water treatment systems; and continue program management and quarterly sampling, data management and reporting as required by RCRA and State regulators.	3,261	3,187	3,990
• Carry out soil and ground water activities at SLAC. - In FY 1996, required remedial investigation and ground water monitoring (RWQCB Order) was performed; well inspection and maintenance efforts were carried out; a cursory review of ground water remedial alternatives was performed; and program management activities continued. - In FY 1997, soil and ground water assessment activities and associated program management, in accordance with the small site initiative, will be continued. - In FY 1998, ground water monitoring efforts will continue and assessment of the plating shop will be initiated and completed.	1,033	995	995

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Site-wide activities at ETEC. - In FY 1996, ground water and environmental monitoring continued and the site characterization report was completed; S&M activities at Building 024, the Radioactive Materials Handling Facility (RMHF), the Liquid Metal Development Lab (LMDL) B051, and D&D at the Large Leak Test Reactor (LLTR) was initiated; the Building 012 D&D final survey and independent verification was completed; operation of the interim ground water treatment system and ongoing D&D efforts continued; the draft certification docket (for project closeout) for facilities 005, 023, 028, and 029 was completed; and work on a ground water treatment system was initiated. - In FY 1997, S&M activities at Building 024, RMHF and the LMDL B051 environmental monitoring will continue; operation of an enhanced system for removal of trichloroethylene/trichloroethane (TCE/TCA) from ground water will be initiated; preparation of the RCRA Corrective Measure Study for the B056 landfill cleanup will begin; operation of interim ground water treatment system will continue; planning activities for RMHF will be completed and D&D initiated; D&D of the LLTR B059 will continue; removal of limited quantities of Low Level Waste (LLW) from RMHF B022 (stakeholder concern) will begin; and draft certification docket (for project closeout) will be completed for facilities 012, 019, 030, 064, and 654. - In FY 1998, S&M activities at Building 024, LMDL-2, Sodium Component Test Loop (SCTL), and RMHF will be provided; environmental monitoring will continue; the RCRA corrective action for B056 Landfill SWMU will be completed; operation and installation of TCE/TCA Removal Ground Water Treatment system will continue; operation of Ground Water Extraction Well System and Monitoring will continue; ground water remediation technology improvements will be implemented; D&D of LLTR and draft certification docket will be completed; removal of LLW will continue.	$ 1,972	$ 3,213	$ 2,590
• Conduct S&M, waste management, soil and ground water monitoring/investigation, decontamination of sodium facilities, SCTL, and LMDL2, D&D of B059, and landlord activity at ETEC (transferred from EM's Office of Nuclear Materials and Facility Stabilization).	0	0	13,700
• Conduct characterization at Alpha Hot Cell #4 at the General Electric facility. - In FY 1998, S&M and characterization activities will be initiated.	0	0	750

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct soil removal actions at LEHR. - In FY 1996, disposal of Rockwell International derived waste was initiated and completed; the Rockwell International report was prepared; the Dog Pen Area removal action was completed; the final survey report for Cobalt 60 building was prepared; and environmental monitoring and remediation planning activities of DOE areas continued. - In FY 1997, disposition of the 1300 Ci Cobalt 60 source; environmental monitoring, DOE source area removal actions, and disposal of restoration activity waste will continue. - In FY 1998, environmental monitoring and disposal of restoration activity waste will continue, and remediation of DOE areas will be completed.	$ 4,152	$ 3,549	$ 4,880
• Conduct D&D activities at GA Hot Cell. - In FY 1996, required environmental, health and safety, S&M, and program management activities for D&D of the Hot Cell Facility was provided; D&D of the Hot Cell Facility was initiated; and generated LLW was shipped to Hanford, Washington for disposal. - In FY 1997, D&D of the Hot Cell Facility will continue (decontamination work will be completed and building demolition will be initiated), and required environmental, health and safety, S&M, and program management support will be provided; and generated waste will continue to be shipped to Hanford for disposal. - In FY 1998, demolition of the Hot Cell Facility will be completed and required environmental, health and safety, S&M, and program management support will be provided; subsurface and surrounding contaminated soils will be removed; and generated waste will continue to be shipped to Hanford for disposal.	3,000	3,600	4,000
• Provided for EM crosscutting efforts that were managed by Headquarters. - Headquarters-managed crosscutting requirements vary from year to year and site to site, and are determined during year of execution (Pete Tribal College initiatives and Hispanic Scholarship).	6	0	720
Total Other Small Sites, Oakland	**16,513**	**15,385**	**31,625**
TOTAL, OAKLAND	**$ 16,513**	**$ 15,385**	**$ 31,625**

Explanation of Funding Changes FY 1997 to FY 1998:

Other Small Sites:

•	Major increase is result of transfer of facilities at ETEC from EM's Office of Nuclear Materials and Facility Stabilization to the Environmental Restoration Program. Scope increase of additional facilities containing hazardous materials such as asbestos and sodium. Also landlord costs for infrastructure, S&M, regulatory compliance, National Pollutant Discharge Elimination System, and air emissions discharge permits.	$ 13,077
•	Initiated General Electric Alpha Hot Cell #4 characterization. Long delayed contract to begin work is finally negotiated (General Electric/DOE cost split agreed to and Transuranic (TRU) Waste disposition issues resolved). Initiation of characterization work allows for better "cost-to-complete" estimate.	750
•	Reduce direct support to the Oakland Operations Office.	-841
•	Initiation of Corrective Measure Study at LBNL.	803
•	Begin subsurface and surrounding contaminated soil removal at GA.	400
•	EM program crosscutting requirements funded previously in Defense appropriation.	720
•	Complete remedial actions at LEHR.	1,331
Total Funding Change, Oakland		**$ 16,240**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

OAK RIDGE

I. Mission Supporting Goals and Objectives

The Oak Ridge Operations Office monitors and directs the implementation of environmental restoration activities conducted within the Oak Ridge Reservation (ORR) in Tennessee, the Formerly Utilized Sites Remedial Action Program (FUSRAP) efforts in various states (discussed separately, immediately following the section), and activities at the Weldon Spring site in Missouri. ORR is composed of four primary plant sites; K-25, Y-12, Oak Ridge National Laboratory (ORNL), and Oak Ridge Associated Universities (ORAU). Of the ORR sites, only ORNL and ORAU receive funding from the Non-Defense appropriation account. The ORR is comprised of 423 release sites and 198 facilities. Through FY 1998, 25 release sites and 28 facilities are forecast for completion.

The Weldon Spring site is located in St. Charles County, approximately 30 miles west of St. Louis, Missouri. The facility previously served as an ordnance works facility for the Department of the Army, which shares in the cost of remediating the site. Weldon Spring is composed of a nine acre abandoned limestone quarry, a 51 acre raffinate disposal area, and a 169 acre uranium feed materials plant. Weldon Spring site remediation is conducted pursuant to NEPA and CERCLA, and is listed on the EPA National Priorities List. The Weldon Spring site is comprised of 47 facilities and 27 release sites. Through FY 1998, 46 facilities and 10 release sites are forecast for completion.

The ORNL site encompasses approximately 2,900 of the 37,000 acres occupied by ORR. It is located approximately ten miles southwest of Oak Ridge, Tennessee. ORR was placed on the EPA National Priorities List in 1989. During ORR's 50 years of operations, ORNL facilities and structures became deteriorated and portions of ORR became contaminated with radioactive, mixed, and hazardous wastes. ORNL has been subdivided into 20 WAGs encompassing in excess of 350 contaminated sites, to aid in the management of activities to address these contaminants.

ORAU is a consortium of 82 colleges and universities that conduct research for DUE involving various radionuclides and chemicals. ORAU is comprised of seven facilities. Through the end of FY 1998, all seven facilities are forecast for completion.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Large Site Remedial Action	$ 76,731	$ 96,739	$ 98,637	$ 1,898	2
Large Site Decommissioning	13,622	7,180	22,632	15,452	215
Other Small Sites	350	0	0	0	0
Total, Oak Ridge	$ 90,703	$ 103,919	$ 121,269	$ 17,350	17

III. Performance Summary

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct required assessments and monitoring efforts for the Watts Bar Reservoir at the ORR.	$ 322	$ 61	$ 172
• Provide for site-wide regulatory integration and technical support services associated with risk assessment, ground water compliance, limited materials recycling programs, and ORR environmental information systems.	6,298	7,364	3,201
• Completed the Weldon Spring soil borrow area and haul road construction project.	5,526	0	0
• Carry out removal of chemical plant building foundations at Weldon Spring. - In FY 1996, building foundation removal activities were continued. - In FY 1997, building foundation removal activities will be completed.	10,337	3,486	0
• Carry out activities at the Weldon Spring Temporary Storage Area (TSA), the Materials Staging Area (MSA), and the Contractor Materials Staging Area forecast. - In FY 1996, the Contractor Materials Staging Area construction was completed; TSA and MSA operations continued. - In FY 1997, the Contractor Materials Staging Area operation will be initiated; TSA and MSA operations will continue. - In FY 1998, continue operations of the TSA, the Contractor Materials Staging Area, and the MSA.	3,461	500	1,400
• Provide for regulatory required environmental, health, and safety programs in support of assessment (site ground water OU and quarry residuals OU), large-scale remediation construction activities (disposal cell, sludge processing facility, construction site drainage control), site cleanup confirmation, vicinity property remediation, and site-wide monitoring.	13,674	28,476	25,175
• Carry out efforts on the Weldon Spring site disposal facility. - In FY 1996, the disposal facility design for construction and waste placement was completed. - In FY 1997, disposal facility construction will be initiated. - In FY 1998, disposal facility construction will continue.	1,200	15,309	21,732
• Completed construction of the Weldon Spring site drainage control facilities.	1,147	0	0

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct efforts on the Weldon Spring Chemical Stabilization/Solidification facility. - In FY 1996, full-scale Chemical Stabilization/Solidification facility design was completed and long lead equipment was purchased. - In FY 1997, construction of the full-scale facility will be initiated. - In FY 1998, construction of the facility will be completed and operational testing will be initiated.	$ 4,500	$ 8,332	$ 5,200
• Conduct Weldon Spring activities to address Quarry residuals and site ground water. - In FY 1996, preparation efforts at the Quarry were conducted and ground water Remedial Investigation/Feasibility Study activities continued. - In FY 1997, preparation efforts at the Quarry and ground water RI/FS activities will continue. - In FY 1998, the Quarry Feasibility Study and ground water ROD will be completed.	3,435	2,272	992
• Carry out efforts at the Weldon Spring Quarry, Site Water Treatment Plant complex, and provide for SWTP Train 2 construction and operation. - In FY 1996, Quarry and SWTP operations continued and Train 2 construction was completed. - In FY 1997, operations will continue at the Quarry and SWTP. - In FY 1998, carry out increased level of operations at the Quarry and SWTP.	6,090	4,148	7,280
• Initiate Weldon Spring RCRA storage building demolition.	0	0	468
• Conduct activities at the Weldon Spring Raffinate Pits. - In FY 1996, debris consolidation was completed and dewatering and sludge consolidation was initiated. - In FY 1997, dewatering and sludge consolidation efforts will continue. - In FY 1998, dewatering and sludge consolidation efforts will continue, and characterization of the liner-soil will be initiated.	2,715	1,151	3,940
• Conduct Weldon Spring VP remediation activities. - In FY 1996, remediation design activities continued. - In FY 1997, remediation design activities will continue. - In FY 1998, the Busch Lakes VP remediation will be completed.	1,000	2,276	1,313

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct efforts at the ORNL WAG 1 and Gunite and Associated Tanks. - In FY 1996, Phase II of the Gunite and Associated Tanks Treatability Study and construction of the Process Waste Surge Tank for the Surface Impoundment Operable Unit remediation and sediment disposition was completed. - In FY 1997, the remaining phases of the Gunite and Associated Tanks Treatability Study will be completed, as will construction activities for the remote sludge waste retrieval demonstration; preparation of the associated Feasibility Study/Proposed Plan will be initiated; and the Surface Impoundment Operable Unit ROD will be submitted and the associated remedial design will be initiated; conduct required ground water monitoring activities. - In FY 1998, Gunite and Associated Tanks remedial action work plan preparation activities will be conducted, and the Surface Impoundment Operable Unit remediation and sediment disposition will continue.	$ 15,559	$ 15,940	$ 12,739
• Carry out activities at the ORNL WAG 5 Old Hydrofracture Facility tanks. - In FY 1996, characterization, site preparation, and installation of a tank riser was completed to facilitate removal of highly radioactive sludge and liquids. - In FY 1997, continue activities to remove highly radioactive sludge and liquids from the Old Hydrofracture Facility tanks. - In FY 1998, the Old Hydrofracture Facility tank sludge and liquid removal will be completed.	133	1,742	9,436
• Conduct efforts at the ORNL WAG 7, including contaminated soil and solids remediation. - In FY 1997, carry out and complete the In-situ Vitrification demonstration project activities. - In FY 1998, remediation of the WAG 7 trenches using In-situ Vitrification technology will be initiated.	0	500	1,491

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Carry out ORNL WAG 4 Seeps Remediation. - In FY 1996, remediation of the Seeps grouting was initiated and completed to reduce offsite contamination.	$ 28	$ 0	$ 0
• Provide for ORNL compliance driven site-wide sampling, analysis, monitoring and S&M, and other activities.	1,306	5,182	4,098
Total Large Site Remedial Action, Oak Ridge	**76,731**	**96,739**	**98,637**

Large Site Decommissioning:	**FY 1996**	**FY 1997**	**FY 1998**
• Carry out decommissioning at the ORNL Molten Salt Reactor Experiment to comply with Defense Nuclear Facilities Safety Board recommendation 94-1 - In FY 1996, the technical approach was selected for the uranium deposit removal action and the associated Engineering Evaluation/Cost Analysis (EE/CA) was issued for review. Technical studies to identify options for dispositioning the fuel salts was initiated and the off-gas system partitioning interim action was completed. - In FY 1997, complete initial reactive gas removal and continue planning and documentation activities associated with the auxiliary charcoal uranium deposit removal and the fuel salts removal. - In FY 1998, continue activities associated with the Molten Salt Reactor Experiment fuel salts removal action, and complete design, fabrication, testing, and safety approvals for the uranium deposit removal action.	12,999	7,180	21,062
• Completed the ORNL Waste Evaporator Facility demolition in FY 1996 using carry over funds.	0	0	0
• Provide for ORNL site-wide program support and required S&M associated with decommissioning. - In FY 1996, continue program support and required S&M. - In FY 1997, continue comparable activities in the defense account. - In FY 1998, continue program support and required S&M.	623	0	1,570
Total Large Site Decommissioning, Oak Ridge	**13,622**	**7,180**	**22,632**

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Continued remediation efforts at the Oak Ridge Associated Universities; site was transferred back to Department of Agriculture at the end of FY 1996.	$ 350	$ 0	$ 0
Total Other Small Sites, Oak Ridge	**350**	**0**	**0**
TOTAL, OAK RIDGE	**$ 90,703**	**$ 103,919**	**$ 121,269**

Explanation of Funding Changes FY 1997 to FY 1998:

Large Site Remedial Action:	
• Decrease in ORR regulatory and technical support services.	$ -4,052
• Increase in remediation activities at Weldon Spring.	1,550
• Increase to ORNL activities; shifts between various WAGs.	4,400
Subtotal	1,898
Large Site Decommissioning:	
• Major increase is for decommissioning of the ORNL Molten Salt Reactor Experiment Facility. Decommissioning is necessary because fissile uranium is currently in a condition unsuitable for long-term storage. The additional funding is required to complete the Molten Salt Reactor Experiment Uranium Deposit Removal, continue the Reactive Gas Removal operations as necessary, and begin the design of the Fuel Salt Removal System.	13,882
• Increase in required site-wide technical support.	1,570
Subtotal	15,452
Total Funding Change, Oak Ridge	**$ 17,350**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

OAK RIDGE / FUSRAP

I. Mission Supporting Goals and Objectives

The site identification and assessment program initiated by the Atomic Energy Commission in 1974, is being continued under FUSRAP, to identify sites where radioactive contamination remains from early years of the Nation's Atomic Energy program. Following a determination that there is authority to conduct remedial action under the Atomic Energy Act of 1954, as amended, sites so identified are formally included for remedial action in FUSRAP.

The FUSRAP activity currently includes 46 sites in 14 states and is managed through the Oak Ridge Operations Office. Each geographic site is comprised of one release site. Program objectives are to identify, clean up, or otherwise control sites, that are DOE-owned or DOE-leased and at privately owned sites, where radioactive contamination remains from early years of the Nation's Atomic Energy program or from commercial operations that Congress authorized DOE to remedy.

Of the 46 FUSRAP sites, 41 are former Manhattan Engineering District or Atomic Energy Commission sites. The other five sites were added by Congressional action in 1984 and 1985. Six of the FUSRAP sites are listed on the EPA National Priorities List. The 46 FUSRAP sites are grouped in four state groupings: Missouri, New Jersey, New York, and Other States.

II. Funding Schedule

State Distribution	FY 1996	FY 1997	FY 1998	$ Change	% Change
Missouri Sites	$ 15,261	$ 23,409	$ 40,965	$ 17,556	75
New Jersey Sites	30,005	26,031	60,276	34,245	132
New York Sites	18,568	16,366	53,652	37,286	228
Other Sites	9,628	9,279	27,186	17,907	193
Total, FUSRAP	$ 73,462	$ 75,085	$ 182,079	$ 106,994	142

III. Performance Summary

FUSRAP:	**FY 1996**	**FY 1997**	**FY 1998**
MISSOURI - Activities being conducted in the State of Missouri are detailed below	$ 15,261	$ 23,409	$ 40,965
• Carry out cleanup actions for the St. Louis, MO sites. - In FY 1996, activities associated with interim cleanup actions at the Downtown site and the Airport VPs continued; and required S&M was performed. - In FY 1997, activities associated with interim cleanup actions at the Downtown site and the Airport VPs will continue and required S&M will be performed. - In FY 1998, activities associated with interim cleanup actions at the Downtown site will continue; final site-wide decision will be made and cleanup will be initiated; removal actions at the Airport sites will be initiated; and required S&M will be performed.			
NEW JERSEY - Activities being conducted in the State of New Jersey are detailed below	30,005	26,031	60,276
• Carry out efforts at the DuPont, NJ site. - In FY 1996, site characterization was initiated. - In FY 1997, site characterization will be completed and only required S&M will be performed. - In FY 1998, site cleanup will be initiated.			
• Conduct Middlesex, NJ site activities. - In FY 1996, activities were conducted to complete preparation of the EE/CA for ditch removal and building demolition; efforts were initiated and completed at the ditch removal; and required S&M was provided. - In FY 1997, building demolition will be completed, activities will be conducted to prepare the EE/CA for site remediation, and required S&M will be performed. - In FY 1998, the site remediation EE/CA will be completed and site cleanup will be initiated.			
• Conduct Wayne, NJ site activities. - In FY 1996, the Phase A pile removal was completed and required S&M was performed. - In FY 1997, the Phase B pile removal will be completed, subsurface characterization will be initiated, and required S&M will be performed. - In FY 1998, the Phase C pile removal will be completed, subsurface characterization will be completed, initiate site-wide cleanup, and required S&M will be performed.			

FUSRAP:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct Maywood, NJ site activities. - In FY 1996, activities were conducted to initiate and complete the Phase C pile removal, initiate VP cleanup actions, and to provide required S&M. - In FY 1997, the Phase D pile removal will be initiated and completed, continue VP cleanup actions, and required S&M will be performed. - In FY 1998, VP cleanup actions and required S&M will continue.			
• Conduct efforts at the New Brunswick, NJ site. - In FY 1996, initiated site cleanup activities. - In FY 1997, site cleanup activities and the associated PRAR will be completed.			
NEW YORK - Activities being conducted in the State of New York are detailed below	$ 18,568	$ 16,366	$ 53,652
• Carry out efforts at the various Tonawanda Sites in NY. - In FY 1996, activities were conducted to initiate and complete the decontamination of three buildings; pile removal was completed; one building at Linde was demolished; and the Ashland 1 and 2 site characterizations were completed. - In FY 1997, the Linde removal actions will be completed. - In FY 1998, acceleration of the site-wide cleanup will be initiated.			
• Carry out activities at the Colonie, NY site. - In FY 1996, building decontamination and demolition was completed and site-wide cleanup was initiated. - In FY 1997, site-wide cleanup will continue. - In FY 1998, site-wide cleanup will continue.			
• Perform cleanup at the B&L Steel, NY site. - In FY 1997, building decontamination will be performed.			
• Conduct efforts at the Niagara Falls Storage Site in NY. - In FY 1996, activities were conducted to support certification package and required S&M was performed. - In FY 1997, activities will be conducted to complete the site certification package and required S&M will be performed. - In FY 1998, required S&M will be performed.			

FUSRAP:	**FY 1996**	**FY 1997**	**FY 1998**
OTHER - Other FUSRAP activities being conducted in the State of Connecticut, Massachusetts, Michigan, Ohio, and Pennsylvania are detailed below	$ 9,628	$ 9,279	$ 27,186

- Completed the Post Remedial Action Report (PRAR) for the Associate Aircraft, OH: the Alba Craft; OH; the C. H. Schnoor, PA; the Aliquippa Forge, PA; the Chapman Valve, MA; and the HHM Safee, OH sites.

- Conduct efforts at the Combustion Engineering, CT site.
  - In FY 1996, initiated site characterization efforts.
  - In FY 1997, site characterization will continue.
  - In FY 1998, site characterization will be completed and site cleanup will be initiated.

- Conduct efforts at the Shpack, MA site.
  - In FY 1996, site EE/CA will be initiated.
  - In FY 1997, site EE/CA will be completed and hazard assessment will be performed for probable delisting.

- Conduct cleanup at the Ventron, MA site.
  - In FY 1996, completed the cleanup design and cleanup was initiated.
  - In FY 1997, the site cleanup and associated PRAR will be completed.

- At the General Motors, MI site the PRAR was prepared and completed.
  - In FY 1996, prepared and completed the PRAR.

- Carry out efforts at the Baker Brothers, OH site.
  - In FY 1996, site cleanup was completed and initiated PRAR.
  - In FY 1997, the PRAR will be completed.

- Carry out efforts at the B&T Metals, OH site.
  - In FY 1996, completed site cleanup.
  - In FY 1997, initiate and complete PRAR.

- Carry out efforts at the Luckey, OH site.
  - In FY 1996, the site characterization plan was prepared.
  - In FY 1997, site characterization will be initiated.
  - In FY 1998, site characterization will be completed and cleanup activities will be initiated.

FUSRAP:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct efforts at the Painesville, OH site. - In FY 1996, activities were conducted to prepare the site characterization plan and to initiate site characterization. - In FY 1997, the site characterization will be completed and an interim action to address hot spots will be initiated. - In FY 1998, site cleanup will be initiated.			
TOTAL, FUSRAP	**$ 73,462**	**$ 75,085**	**$ 182,079**

Explanation of Funding Changes FY 1997 to FY 1998:

FUSRAP:

• The FY 1998 budget request will significantly accelerate the cleanup at the various FUSRAP sites. The additional FY 1998 and outyear funding requested will permit the completion of all existing FUSRAP sites by FY 2002, which is four years earlier than the current schedule (complete by FY 2006). This is the EM goal, but we will need to work with affected communities and regulators to meet this goal. The FY 1999 to completion funds requested are estimates of the resources needed to achieve this goal. These accelerated cleanups will eliminate the threat of exposure to uncontrolled radioactive contamination that exceeds DOE guidelines. Cleanup activities that will be accelerated include: residential VP cleanups at Maywood, New Jersey; pile removal and site-wide cleanup at Wayne, New Jersey; interim removal actions at Tonawanda, New York and St. Louis Missouri; and initiation of cleanup activities at Luckey and Painesville, Ohio.	$ 106,994
Total Funding Change, FUSRAP	**$ 106,994**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

OHIO

I. Mission Supporting Goals and Objectives

The ER Program activity managed through the Ohio Operations Office, supports remediation activities at the Battelle Columbus Laboratory (BCL) and the Mound Laboratory (FY 1996 only) in the State of Ohio.

BCL is comprised of two sites (West Jefferson and King Avenue) located in Columbus, Ohio. Research and development work was performed at its facilities for the Department and its predecessors. The buildings are privately owned by Battelle and the facility retains an active Nuclear Regulatory Commission license for possession of special nuclear material. The BCL King Avenue site is comprised of ten radioactively-contaminated facilities. The West Jefferson site is comprised of seven radioactively-contaminated facilities. Through FY 1998 all ten facilities at the King Avenue site, and three facilities at the West Jefferson site are forecast for completion.

The Mound Laboratory is located in Miamisburg, Ohio, approximately ten miles southeast of Dayton, Ohio. All past production activities carried out at the Mound site have been transferred to other DOE sites and EM's current mission is to cleanup the site and make it available for other commercial use.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Large Site Remedial Action	$ 100	$ 0	$ 0	$ 0	0
Large Site Decommissioning	1,061	0	0	0	0
Other Small Sites	11,559	3,163	7,845	4,682	148
Total, Ohio	$ 12,720	$ 3,163	$ 7,845	$ 4,682	148

III. Performance Summary

Large Site Remedial Action:	**FY 1996**	**FY 1997**	**FY 1998**
• Provide for overall EM support activities at Fernald.	$ 100	$ 0	$ 0
Total Large Site Remedial Action, Ohio	**100**	**0**	**0**

Large Site Decommissioning:	**FY 1996**	**FY 1997**	**FY 1998**
• Continued decommissioning of the Semi-works Cave areas at Mound. - In FY 1997, responsibility for the Mound site was transferred to EM's Office of Nuclear Materials and Facility Stabilization.	1,061	0	0
Total Large Site Decommissioning, Ohio	**1,061**	**0**	**0**

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Provide for S&M activities at the West Jefferson North Site at BCL. - In FY 1996, provided S&M including environmental monitoring. - In FY 1997, provide required core environmental S&M activities. - In FY 1998, provide required core environmental S&M activities.	1,978	1,500	300
• Perform facility structural/hazard analysis of major building systems at BCL.	0	0	750
• Support disposition of waste materials at BCL. - In FY 1996, disposed of low level and radioactive mixed waste off-site. - In FY 1997, continue disposal of low level and radioactive mixed waste off-site, and initiate TRU waste planning and development, leading to faster waste shipment off-site. - In FY 1998, initiate waste segregation, sorting, and packaging of waste materials; and continue low level and TRU waste shipments off-site.	1,200	400	500

Other Small Sites:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct decontamination activities at BCL. - In FY 1996, continued decontamination activities at the King Avenue buildings. - In FY 1997, continue decontamination activities at the King Avenue buildings, completing decontamination work at the entire King Avenue Site; includes health and safety support, emergency preparedness, site services, public relations, quality assurance, waste management, and project management activities, complete annual performance measures. - In FY 1998, continue decontamination activities at the West Jefferson Buildings, including material and equipment removal and activities, health and safety support, emergency preparedness, site services, public relations, quality assurance, waste management, and project management activities; complete annual performance measures.	$ 8,381	$ 1,263	$ 6,295
Total Other Small Sites, Ohio	**11,559**	**3,163**	**7,845**
TOTAL, OHIO	**$ 12,720**	**$ 3,163**	**$ 7,845**

Explanation of Funding Changes FY 1997 to FY 1998:

Other Small Sites:	
• Increase at BCL for West Jefferson decontamination activities and a reduction in S&M activities.	$ 4,682
Total Funding Change, Ohio	**$ 4,682**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

SAVANNAH RIVER

I. Mission Supporting Goals and Objectives

This program activity supports remediation at the Savannah River Site (SRS), which is located in south-central South Carolina and is bordered on the southwestern side by the Savannah River. The closest major population centers are Aiken, South Carolina and Augusta, Georgia.

The Heavy Water Component Test Reactor (HWCTR) facility was deactivated in 1963. Ancillary building and equipment were removed in 1994. NEPA documentation, asbestos removal and D&D began in 1995. The deactivated reactor is currently scheduled for D&D S&M activities, which will continue until completion of the D&D phase.

Primary on-site contaminants include various nuclides (particularly plutonium, tritium, and uranium), volatile organic compounds, heavy metals, and solvents. Legal drivers for activities conducted at SRS include RCRA, CERCLA, and the site FFA (August, 1993) and various settlement agreements.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Large Site Decommissioning	$ 4,300	$ 4,269	$ 4,300	$ 31	1
Total, Savannah River	$ 4,300	$ 4,269	$ 4,300	$ 31	1

III. Performance Summary

Large Site Decommissioning:	**FY 1996**	**FY 1997**	**FY 1998**
• Conduct S&M and decommissioning activities at the HWCTR facility. - In FY 1996, continued demolition of Control Building, characterization, and engineering design. - In FY 1997, begin waste certification; continue removal of small equipment; and begin procurement activities and engineering studies on large component removal. - In FY 1998, continue decommissioning and prepare for removal of large components.	$ 4,300	$ 4,269	$ 4,300
Total Large Site Decommissioning, Savannah River	**4,300**	**4,269**	**4,300**
TOTAL, SAVANNAH RIVER	**$ 4,300**	**$ 4,269**	**$ 4,300**

Explanation of Funding Changes FY 1997 to FY 1998:

Large Site Decommissioning:	
• Minor increase is associated with preparation for removal of large components.	$ 31
Total Funding Change, Savannah River	**$ 31**

ENVIRONMENTAL RESTORATION - NON-DEFENSE
(Dollars in Thousands)

HEADQUARTERS

I. Mission Supporting Goals and Objectives

Activities managed through Headquarters include the direction, coordination, tracking, and implementation of the ER program among the multitude of sites where remediation activities are being carried out. Activities supported include technical integration activities, document review, and cooperative agreements.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Headquarters	$ 2,957	$ 9,249	$ 8,198	$ -1,051	-11
Total, Headquarters	$ 2,957	$ 9,249	$ 8,198	$ -1,051	$ -11

III. Performance Summary

Headquarters:	**FY 1996**	**FY 1997**	**FY 1998**
• Provide technical support for the Residual Radioactive Code Development activities.	$ 600	$ 500	$ 500
• Provide support for the Agency for Toxic Substances and Disease Registry; the cooperative agreement with the Volpe National Transportation System Center on improving management systems (including core database support); the National Academy of Sciences (peer reviews on specific projects); and the EPA (CERCLA/radiation training and development of radiation site cleanup standards).	1,590	5,520	5,650
• Headquarters-supported field activities including technical support and program integration.	767	3,229	2,048
TOTAL, HEADQUARTERS	**$ 2,957**	**$ 9,249**	**$ 8,198**

Explanation of Funding Changes FY 1997 to FY 1998:

Headquarters:

• Reduction in technical support activities.	$	-1,051
Total Funding Change, Headquarters	**$**	**-1,051**

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT

(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

PROGRAM MISSION

For nearly five decades the Department of Energy (DOE) and its predecessors, the Energy Research and Development Administration and the Atomic Energy Commission, have been generating radioactive waste from research and development activities. Those activities produced large quantities of waste, which were stored or disposed of in a manner that does not meet today's more stringent environmental, safety and health standards. Much of the stored waste contains radioactive materials, hazardous chemicals, or both.

MISSION STATEMENT

The mission of the Waste Management (WM) program is to protect people and the environment from the hazards of DOE waste by providing an effective and efficient system to store, treat, and dispose of the waste as soon as possible.

PROGRAM GOALS

The strategic GOALS of the Non-Defense Waste Management program support the WM mission by:

1) Focusing on resolution of the most significant environmental risks;
2) Reducing mortgage and support costs to provide resources for further risk reduction;
3) Working in partnership with regulators and stakeholders to find new approaches to problems to reduce costs;
4) Overseeing on-going regulatory compliance activities to ensure DOE meets environmental, safety and health requirements; and
5) Integrating waste treatment and disposal across sites to maximize mission completion and cost reduction.

PROGRAM MISSION - WASTE MANAGEMENT - NON-DEFENSE

PERFORMANCE MEASURES

The Office of Waste Management plans to measure the success of its FY 1998 program in meeting the above goals primarily through treatment and disposal of waste, which reduces risk and cost (goals 1,2,4,5). The program will also continue to work with regulators, stakeholders, the Defense Nuclear Facilities Safety Board, and other Departmental organizations to maintain or improve compliance and reduce costs (goals 3 and 4).

Specific waste treatment activities to eliminate the most significant environmental risks include:

- Continuing high-level waste (HLW) treatment at the West Valley Demonstration Project in FY 1998 to reduce risk associated with storage of liquid HLW (goal 1);
    - Produce about 125 canisters of vitrified HLW through continued operations of the West Valley Demonstration Project.

Specific partnership and compliance activities that find new approaches to problems to reduce costs are best exemplified through:

- Implementing Site Treatment Plans as negotiated through the Federal Facility Compliance Act (FFCAct) process (goals 3,4);
    - Begin or accelerate mixed waste treatment at various DOE locations in response to the FFCAct.
    - Secure contracts for private vendor treatment.

- Re-engineering Waste Management Operations for newly generated waste (goals 2):

    - Selected waste management operations have been turned over to the Office of Energy Research (at Stanford and Fermilab) and Office of Nuclear Energy (at Argonne-West) to achieve greater cost efficiencies.
    - Other sites are conducting “mock-billing” pilots to demonstrate greater cost efficiencies.

Specific waste disposal activities, which reduce mortgage and support costs include (goals 2,3,4,5):

- Assisting states and compact regions in fulfilling their responsibilities to establish a national low-level waste (LLW) management system for commercially-generated LLW under Public Law 99-240.

- Dispose of about 4,100 cubic meters of non-defense generated LLW at various DOE sites including Oak Ridge and Richland.

PROGRAM MISSION - WASTE MANAGEMENT - NON-DEFENSE

Figure 1 provides a summary of the Waste Management performance measures for non-defense activities. Information related to these graphs is found in the discussions of the individual waste type strategies. These performance measures are further reflected in the site summaries.

DEPARTMENT OF ENERGY

FY1998 CONGRESSIONAL BUDGET REQUEST

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

ENERGY SUPPLY RESEARCH AND DEVELOPMENT

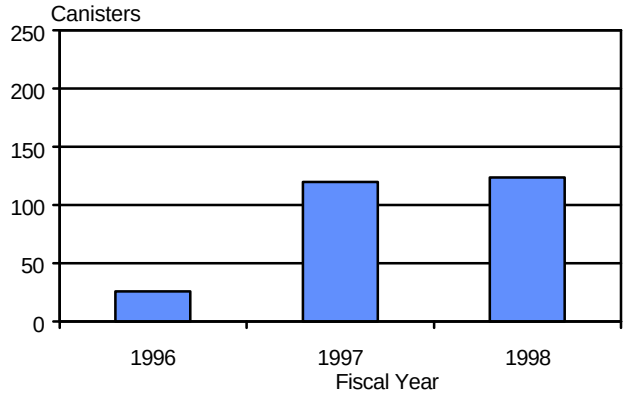
(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

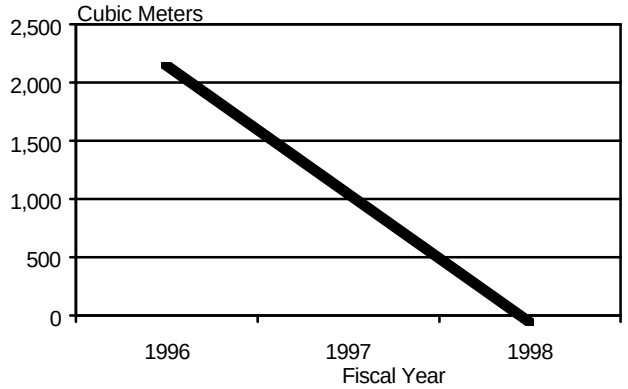
FIGURE 1 - SUMMARY WASTE MANAGEMENT PERFORMANCE MEASURES

High-Level Waste Progress

Vitrified Waste Canister Annual Production



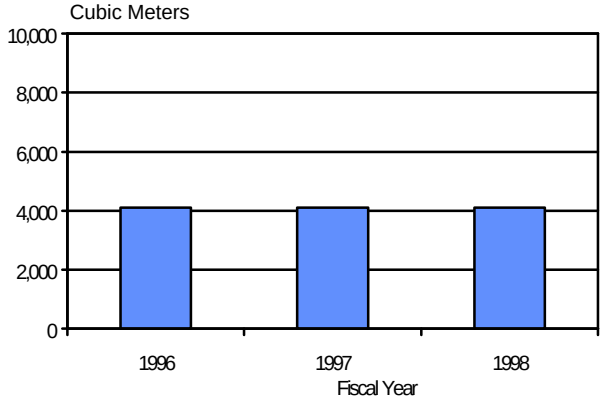
High-Level Waste Inventory



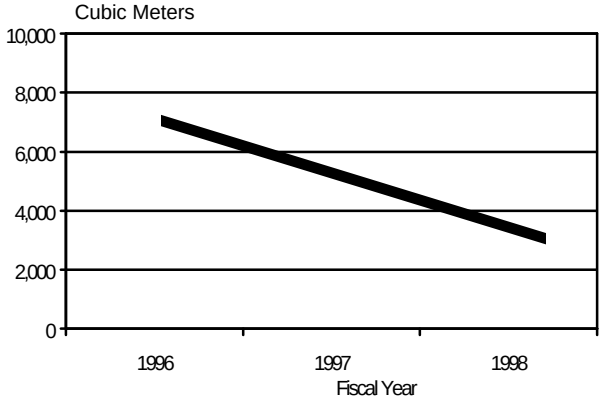
• Commenced Vitrification of HLW at West Valley

Low-Level Waste Progress

Annual Low-Level Waste Disposal



Low-Level Waste Inventory



• Steady state LLW disposal in 96-98

WASTE TYPE STRATEGIES

To achieve these goals, the Department is developing an integrated Ten-Year Plan consistent with our vision to complete as much cleanup as possible within ten years. Completion is dependent on integrated planning strategies for each type of waste managed across the DOE complex, including: high-level waste (HLW), transuranic (TRU) waste, low-level waste (LLW), mixed low-level waste (MLLW), hazardous (HAZ) waste, and sanitary (SAN) waste. Listed below are the strategies that presently support the waste management mission.

High-Level Waste

High-level waste (HLW) is the highly radioactive material resulting from spent nuclear fuel (SNF) reprocessing. It consists mainly of liquid waste remaining from the recovery of uranium and plutonium from SNF. The long-term objective in the management of HLW is to dispose of the high activity portion of the waste in a geologic repository. The Waste Management Program supports activities of other DOE organizations to assure a geologic repository is completed. In the near-term, the Waste Management Program is vitrifying liquid HLW (approximately 2,200 m^3 total) at the West Valley Demonstration Project in New York, which will be stored awaiting the opening of a geologic repository for disposal. In FY 1998, it is expected that the last 125 canisters of HLW will be produced at West Valley bringing the total to approximately 300 canisters and completing Phase I of the project. The benefit of this program is the stabilization of HLW in a form suited for long-term storage pending disposal.

Transuranic Waste

Transuranic (TRU) waste is radioactive waste containing more than 100 nanocuries per gram of alpha-emitting isotopes with atomic numbers greater than 92 (uranium) and half-lives greater than 20 years. This waste is the result of research and development activities. For some TRU waste, little or no shielding is required; this waste is referred to as "contact-handled" TRU waste. On the other hand, there are TRU wastes with large amounts of radionuclides, which require shielding because of their gamma-ray or neutron emissions. This waste is referred to as "remote-handled" TRU waste.

Relatively small amounts, about 550 cubic meters, of TRU waste are stored at West Valley. This is the largest concentration of non-defense TRU waste and represents about 50 curies of radioactivity. Other non-defense sites store a total of less than 100 cubic meters of TRU waste. The most pressing problem with non-defense TRU waste continues to be disposal. Because the volume of waste is small, it is not economically feasible to build a separate facility similar to the Waste Isolation Pilot Plant (WIPP) for disposal of non-defense TRU waste. However, non-defense generated TRU cannot legally be disposed at WIPP. The near-term goal is to keep the waste in safe storage until a decision is made regarding the disposal of non-defense TRU.

Low-Level Waste

Low-level waste (LLW) is defined as any radioactive waste which is not high-level, transuranic waste, spent nuclear fuel, or mill tailings. The Waste Management Program is responsible for the disposal of LLW from non-defense funded facilities, and for the operation of the National LLW Program. In FY 1998 it is expected that approximately 4,100 cubic meters of the LLW resulting from non-defense research and development activities will be disposed. This represents about 54 percent of the total LLW either in storage (5,400 m^3) or expected to be generated (2,300 m^3) in FY 1998.

The goal of the National LLW Program is to facilitate the establishment of a national system for the management of commercially generated LLW by implementing responsibilities assigned to DOE under Public Law 99-240, "Title I Low-Level Radioactive Waste Policy Amendments Act of 1985." The Act assigned states the responsibility for providing, either individually or in cooperation with other states, disposal of LLW generated within their borders. Responsibilities assigned to DOE by the Act include technical and financial assistance to compacts and states in meeting their responsibilities, annual reporting to Congress on progress being made by states on LLW management in the U.S., certain administrative and financial functions, and disposal of the Greater-Than-Class-C (GTCC) LLW resulting from activities of the Nuclear Regulatory Commission (NRC) licensed generators. The National LLW Program will continue to provide technical assistance to states and compact regions by facilitating information exchange through the Host State Technical Coordinating Committee, the LLW Forum, and the Annual DOE LLW Management Conference; by preparing technical modules and reports on LLW management issues of interest to the states; by providing workshops, performance assessment assistance, liaison services, and assistance with state-specific requests; and by providing data systems support.

The measure of success will be the establishment of a commercial LLW disposal system. The near-term objective is to open at least one new disposal facility for the commercial sector under state responsibility, as mandated by Act. The Act also requires DOE to provide technical assistance to states. Although the California facility license has been issued and three other license applications have been submitted, state progress continues to be slowed by public opposition and litigation. Even though DOE assistance has been useful to the progress made, DOE will evaluate in FY 1997 the continuation and methods of assistance to states. In FY 1998 DOE plans to implement more cost effective and innovative ways of delivering assistance to states. The establishment of a national disposal system remains critical to the continuation of biomedical and pharmaceutical research on AIDS and cancer as well as accommodate LLW from nuclear power production.

The National LLW Program will also continue to manage the surcharge rebate process and prepare the reports to Congress required by the Act. The Greater-Than-Class-C Low-Level Radioactive Waste Program will continue to develop storage and disposal capability for the GTCC LLW and implement GTCC sealed-source storage and management capability. Interim storage can be provided on an urgent case-by-case basis for the GTCC that poses an immediate threat to public health of safety as determined by NRC. Dedicated storage and treatment capability will be developed as required for long-term storage until disposal is feasible.

Low-Level Waste (cont'd)

The benefits of this program include the continuation of a partnership between DOE and states to develop a national disposal system for commercially generated LLW; reports to Congress on the progress being made establishing procedures for DOE to receive and provide disposal capacity for GTCC LLW; and safe storage and disposal of DOE waste and routine disposal of LLW from DOE research and development facilities. Significant activities from the past year include; the resolution of several court cases concerning surcharge rebates to states; the development of a management plan for GTCC LLW; and the facilitation of the development of draft legislation through stakeholder interactions to clarify legal questions concerning disposal options for GTCC LLW.

Mixed Low-Level Waste

Mixed low-level waste consists of both hazardous (as defined by the Resource Conservation and Recovery Act) and radioactive (as defined by the Atomic Energy Act) components, and is not classified as high-level or TRU waste. The long-term goal for low-level mixed waste is to develop necessary treatment and disposal capacity needed to dispose of the existing inventory, as well as newly generated waste.

The Department worked with the states, the Environmental Protection Agency (EPA), Indian Tribes, and stakeholders through the Federal Facility Compliance Act of 1992 process and other mechanisms to develop a national configuration of mixed waste treatment facilities. The Department has in place 35 Site Treatment Plans, enforced by the state or EPA through compliance orders, for the development of mixed waste treatment capacity. The Department is also continuing to work with the states, EPA, Indian Tribes, and stakeholders to determine the most appropriate location of disposal facilities. The near-term goal for mixed waste is to develop treatment capacity as outlined in the Site Treatment Plans and to complete site selection for disposal facilities.

Hazardous and Sanitary Waste

The Department of Energy's Hazardous Waste Program includes wastes regulated under the Resource Conservation and Recovery Act (RCRA), the Toxic Substances Control Act (TSCA), and the State(s).

Hazardous waste, as defined by RCRA, contains concentrations of physical or chemical characteristics that may cause or contribute to mortality or illness or pose a substantial threat if not properly managed. Hazardous waste can be harmful to humans by chemically or physically attacking skeletal, nervous, or other bodily systems. The most common hazardous wastes generated by DOE include spent solvents, corrosives, ignitables, metals, specialty chemicals used by research and development laboratories, explosives, polychlorinated biphenyls (PCBs), and asbestos. Hazardous waste is primarily treated and disposed of by commercial vendors.

Hazardous and Sanitary Waste (cont'd)

Sanitary waste is office waste, cafeteria waste, sewage, sewage sludges, plastic, wood, rubber, rags, and similar materials. Solid sanitary waste is disposed in approved sanitary landfills, and liquid sanitary waste is treated in wastewater treatment facilities prior to discharge into the environment. The Department uses both on-site and off-site disposal facilities for sanitary waste treatment and disposal.

The near- and long-term goals for the management of both hazardous and sanitary waste are the same: maintain regulatory compliance while treating and disposing of waste as it is generated. In FY 1998, efforts focusing on improvements to the efficiency of the program will continue.

Figure 2 provides an overview of the allocation of the Waste Management budget for each of the major waste types. This figure shows that the highest budget allocations are to high-level waste to maximize risk reduction benefits, compliance activities, mortgage reduction, and mission completion.

DEPARTMENT OF ENERGY

FY1998 CONGRESSIONAL BUDGET REQUEST

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

ENERGY SUPPLY RESEARCH AND DEVELOPMENT

(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

FIGURE 2 - WASTE TYPE FUNDING

Office of Waste Management Budget Distribution by Waste Type

(Thousands of Dollars)

Waste Type	FY 1996 Appropriation	FY 1997 Appropriation **	FY 1998 Congressional Request ***
HLW	$ 89,000	$ 76,000	$ 85,000
TRU	2,000	3,000	3,000
MLLW	6,000	8,000	5,000
LLW	42,000	54,000	34,000
HAZ	13,000	17,000	14,000
SAN	2,000	2,000	2,000
OTHER *	31,000	24,000	10,000
TOTAL	$ 185,000	$ 184,000	$ 153,000 ****

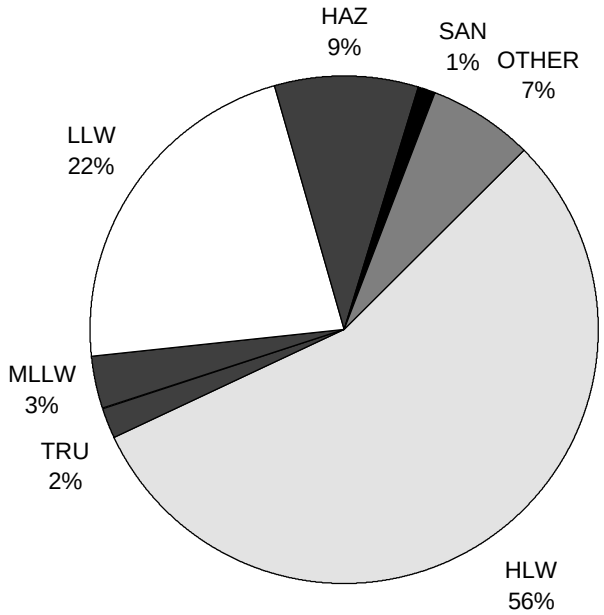
* Other includes Special Case Waste, Waste Minimization, Program Management, and Fixed Infrastructure.

** FY 1997 does not include Spent Fuel.

*** FY 1998 does not include Spent Fuel or Construction Projects.

**** Rounded budget request. Actual budget is $153,004.

FY 1998 Percent of Budget by Waste Type



PROGRAM MISSION - WASTE MANAGEMENT - NON-DEFENSE (cont'd)

BUDGET STRUCTURE

The following list defines the funding categories used in this budget by the Office of Waste Management.

Program Management

This category includes strategic and long-range planning activities and provides for technical expertise on Safety and Environmental documentation preparation and review and other program specific support services. No funds are included here, nor have ever been, for Federal salaries and expenses.

Facility Operations and Maintenance

This category funds the routine operation and maintenance of storage and treatment facilities for all waste types at non-defense funded facilities. Waste is either disposed off-site or held in storage pending the opening of disposal facilities, such as those that are needed for high-level and transuranic waste. Facility operations and maintenance includes a comprehensive set of base program activities essential to assure effective and efficient operation of DOE waste management facilities. Examples of activities funded include securing permits and preparation of reports required by environmental regulations, general training and support of technical contractor staff, and operation and maintenance of facilities needed to treat HLW, LLW, MLLW, sanitary or hazardous wastes.

New Facilities

This program category includes the operating expense costs related to physical construction. It includes the costs of engineering studies and preliminary design of new projects and modifications to existing facilities needed for waste management operations. It also includes any environmental impact documentation, Safety Analysis Reviews (SAR) and Operational Readiness Reviews (ORR) necessary to construct and begin operations of a new or substantially modified facility. Starting in FY 1998, all capital funding requests previously budgeted here will be included in the Energy Assets Acquisition appropriation. Once the facility is operational, all annual and outyear costs, including capital equipment not related to construction, will be funded under the Facility Operations and Maintenance budget.

BUDGET STRUCTURE (cont'd)

West Valley Demonstration Project

This category supports the West Valley Demonstration Project, which is demonstrating solidification of HLW under the provisions of Public Law 96-368, the "West Valley Demonstration Project Act" of 1980. The purpose of the project is to develop and demonstrate an integrated production-scale project for treating the 660,000 gallons of alkaline and acidic liquid HLW stored at the Western New York Nuclear Service Center, near West Valley, New York. The Center reprocessed spent nuclear fuel from 1966 to 1972. The project includes the following major activities:

(1) decontamination required to prepare existing facilities and equipment; (2) removal of the wastes from the underground storage tanks; (3) development, design, construction, and operation of systems for solidification of the waste; (4) acquisition of disposal containers; (5) temporary storage and transportation of the solidified waste; (6) decontamination and decommissioning of the waste tanks, facilities, hardware, and material used in carrying out the project; and (7) disposal of LLW and TRU waste produced from project activities.

National Low-Level Waste

The National Low-Level Waste Program provides timely and effective implementation of DOE responsibilities mandated by Public Law 99-240 and provides technical assistance to the states in meeting their responsibilities for management and disposal of their LLW.

Solid Waste

Funds provided under this budget category address Corrective Activities necessary to bring out-of-compliance non-defense facilities into compliance with RCRA, TSCA, provisions of the Hazardous and Solid Waste Amendment's, State and Local Ordinances, and DOE Orders. Only one project continues to be supported under this budget, and no new Corrective Activities funding will be requested.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT

(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

PROGRAM FUNDING PROFILE

	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
Program Management	$ 2,147	$ 650	$ 0	$ 650	$0
Facility Operations and Maintenance	50,982	51,960	0	51,960	34,465
New Facilities	2,458	630	0	630	590
West Valley Demonstration Project	115,289	119,601	0	119,601	113,201
National Low-Level Waste	2,865	4,553	0	4,553	4,348
Solid Waste	450	600	0	600	400
Subtotal, Operations & Maintenance	174,191	177,994	0	177,994	153,004
Construction	5,806	6,224	-360 c/	5,864	0
SUBTOTAL, Waste Management	$179,997	$184,218	$ - 360	$183,858	$153,004

WASTE MANAGEMENT - NON-DEFENSE - PROGRAM FUNDING PROFILE (cont'd)

	FY 1996 Current Appropriation		FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
Corrective Activities (Construction)	5,539	a/	0	0	0	0
TOTAL, Waste Management	$185,536	b/	$184,218	$ -360	$183,858	$153,004

Public Law Authorizations:
Pub. Law 95-91, Department of Energy Organization Act (1977)
Pub. Law 96-363, West Valley Demonstration Act (1980)
Pub. Law 104-206, The Energy and Water Development Appropriations Act, Fiscal Year 1997.

a/ Includes $339,000 in Project 92-E-601 and $4,000,000 in Project 88-R-830, which were appropriated under the Corrective Activities budget and $1,200,000 for Project 90-R-119, which had a reprogramming in FY 1996.

b/ Includes $5,183,000 for the Spent Nuclear Fuel Program, which transferred to the Office of Nuclear Material and Facilities Stabilization in FY 1997, and includes $777,000 use of current year appropriation to meet uncosted offset to the FY 1996 Energy Supply, Research and Development Appropriation.

c/ Reflects cancellation of project 97-E-600, ANL Waste Handling Facility, and use of the funds to meet the Energy Supply, Research and Development uncosted offset to the FY 1997 appropriation.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT

(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

PROGRAM FUNDING BY SITE

	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
ALBUQUERQUE OPERATIONS OFFICE					
Inhalation Toxicology Research Institute (NM)	$ 630	$ 596	$ 0	$ 596	$ 553
Subtotal, ALBUQUERQUE	$ 630	$ 596	$ 0	$ 596	$ 553
CHICAGO OPERATIONS OFFICE					
Ames Laboratory (IA)	300	315	0	315	281
Argonne National Laboratory (East) (IL)	11,336	8,885	0	8,885	8,906
Argonne National Laboratory (West) (ID)	2,854	4,670	-360	4,310	0
Brookhaven National Laboratory (NY)	5,816	5,602	0	5,602	5,310
Fermi-Lab (IL)	1,950	2,137	0	2,137	0
Princeton Plasma Physics Lab (NJ)	2,343	3,045	0	3,045	3,225
Chicago Operations Office (IL)	723	0	0	0	0
Subtotal, CHICAGO	$ 25,322	$ 24,654	$-360	$ 24,294	$ 17,722
IDAHO OPERATIONS OFFICE					
Idaho Operations Office (ID)	8,048	4,553	0	4,553	4,348
Subtotal, IDAHO	$ 8,048	$ 4,553	$ 0	$ 4,553	$ 4,348

PROGRAM FUNDING BY SITE - WASTE MANAGEMENT - NON-DEFENSE (cont'd)

	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
OAKLAND OPERATIONS OFFICE					
Energy Technology Engineering Center (CA)	1,894	2,508	0	2,508	3,377
Lawrence Berkeley National Lab (CA)	5,577	5,134	0	5,134	7,252
Laboratory for Energy-Related Health Research (CA)	277	183	0	183	278
Stanford Linear Accelerator Center (CA)	2,959	3,419	0	3,419	0
Oakland Operations Office (CA)	533	650	0	650	0
Subtotal, OAKLAND	$ 11,240	$ 11,894	$ 0	$ 11,894	$ 10,907
OAK RIDGE OPERATIONS OFFICE					
Oak Ridge National Laboratory (TN)	13,557	12,414	0	12,414	6,273
Subtotal, OAK RIDGE	$ 13,557	$ 12,414	$ 0	$12,414	$ 6,273
OHIO FIELD OFFICE					
Ohio Field Office (OH)	115,289	119,601	0	119,601	113,201
Subtotal, OHIO	$115,289	$119,601	$ 0	$119,601	$113,201
RICHLAND OPERATIONS OFFICE					
Richland Operations Office (WA)	11,550	10,506	0	10,506	0
Subtotal, RICHLAND	$ 11,550	$ 10,506	$ 0	$ 10,506	$ 0
HEADQUARTERS					
Headquarters (DC)	$ (100) [a/]	$ 0	$ 0	$ 0	$ 0
TOTAL, Waste Management	$185,536	$184,218	$ -360 [b/]	$183,858	$153,004

a/ Reflects use of uncosted balances to meet FY 1996 Rescission.

b/ Reflects cancellation of project 97-E-600, ANL West Handling Facility, and use of the funds to meet the Energy Supply, Research and Development uncosted offset to the FY 1997 appropriation.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

ALBUQUERQUE

I. Mission Supporting Goals and Objectives

The Albuquerque Operations Office has only one site funded in the Energy Supply, Research and Development Appropriation: the Inhalation Toxicology Research Institute (ITRI). The ITRI conducts studies on the health effects of inhaling potentially hazardous airborne materials. The studies may include radioactive material, insulating materials, diesel exhaust emissions, or other substances from energy production or conservation technologies. The research activities produce very small amounts of biomedical, transuranic, mixed, low-level, hazardous, and sanitary waste.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Facility Operations and Maintenance	$ 630	$ 596	$ 553	$ -43	-7%
TOTAL, Albuquerque	$ 630	$ 596	$ 553	$ -43	-7%

III. Performance Summary - Accomplishments: Albuquerque (cont'd)

	FY 1996	FY 1997	FY 1998
FACILITY OPERATIONS AND MAINTENANCE The ITRI facility manages hazardous, radioactive, and mixed waste.			
- Disposal of approximately 30 m^3 a year of low-level waste inventory at the Nevada Test Site. This represents all waste generated annually at the site.	$ 630	$ 596	$ 553
TOTAL, Albuquerque Operations Office	$ 630	$ 596	$ 553

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998:

There are no significant changes from FY 1997 to FY 1998.

WASTE MANAGEMENT - NON-DEFENSE

CHICAGO

I. Mission Supporting Goals and Objectives

The Chicago Operations Office manages four sites in the Waste Management Program: Ames Laboratory in Iowa, Argonne National Laboratory-East (ANL-E) in Illinois, Brookhaven National Laboratory (BNL) in New York, and the Princeton Plasma Physics Laboratory (PPPL) in New Jersey. These four facilities are laboratories devoted to fundamental and applied research in high energy physics, energy production from fusion, and biological and medical research. The main types of waste associated with these facilities are low-level, mixed low-level, hazardous, and sanitary wastes.

Within this FY 1998 Request, the cost of managing newly generated waste associated with FY 1998 planned activities at Fermilab has been budgeted within the Office of Energy Research's Hi-Energy Physics program. The cost of managing newly generated waste associated with FY 1998 planned activities at Argonne National Laboratory-West have been budgeted within the Office of Nuclear Energy's termination program. During FY 1998 the Offices of Energy Research and Nuclear Energy will be responsible, respectively, for the management of the newly generated waste.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Program Management	$ 823	$ 0	$ 0	$ 0	0%
Facility Operations and Maintenance	21,977	22,228	17,722	-4,506	-20%
New Facilities	1,322	2,066	0	-2,066	-999%
Solid Waste	1,200	0	0	0	0%
TOTAL, Chicago	$ 25,322	$ 24,294	$ 17,722	$-6,572	-27%

WASTE MANAGEMENT
CHICAGO OPERATIONS OFFICE
TOTAL VOLUMES OF WASTE, YEAR END
(in cubic meters)

Hazardous Waste

	FY 1996	FY 1997	FY 1998 *
Stored	400	400	400
Treated	368	406	181
Disposed	368	406	424

Low-Level Radioactive

Stored	1,075	952	878
Treated	885	887	876
Disposed	1,038	975	519

Mixed Low-Level Radioactive

Stored	352	352	40
Treated	36	289	24
Disposed	53	67	6

Transuranic

Stored	57	47	10
Treated	12	13	0
Disposed	0	0	0

* Excludes Fermi and Argonne West, whose waste is managed in FY 1998 by Energy Research and Nuclear Energy, respectively, under the waste management re-engineering pilot program.

III. Performance Summary - Accomplishments: Chicago (cont'd)

	FY 1996	FY 1997	FY 1998
PROGRAM MANAGEMENT			
- Provided for site management and coordination of the six Waste Management (WM) sites; supported data collection, analyses, project management activities, and technical consultation on variety of tasks related to treatment, storage, and disposal of waste.	$823	$0	$0
Subtotal, Program Management	823	0	0
FACILITY OPERATIONS AND MAINTENANCE			
- Continue to properly store, treat, and dispose (see table above) of hazardous, mixed, and radioactive waste generated by laboratory research, and provide a safe and effective WM program to reduce environmental and health risks at ANL-E, ANL-W, BNL, PPPL, Fermilab and the Ames Laboratory (FY 1996 and FY 1997), and at ANL-E, BNL, PPPL, and Ames Laboratory (FY 1998). The FY 1998 request includes up to $1,615,000 to be managed by the Office of Nuclear Energy in support of re-engineering activities at Argonne-West. This is in addition to $1,835,000 of budget authority already requested by the Office of Nuclear Energy for the same purpose, bringing the total funds for requested re-engineering to $3,450,000 at Argonne-West for the budget year.	3,666	3,495	6,197
- Perform all necessary activities to safely and compliantly manage hazardous waste generated from the six WM sites in FY 1996 and FY 1997 and four sites in FY 1998 to reduce environmental and health risks.	5,480	4,653	4,052
- Perform all necessary activities to safely and compliantly manage low-level radioactive waste.	7,202	7,518	4,372
- Perform all necessary activities to safely and compliantly manage mixed low-level radioactive waste.	3,640	3,506	2,094
- Perform all necessary activities to safely and compliantly manage transuranic waste generated from the two WM sites (ANL-E and ANL-W) in FY 1996 and FY 1997 and one site (ANL-E) in FY 1998 to reduce environmental and health risks.	1,578	1,056	1,007

III. Performance Summary - Accomplishments: Chicago (cont'd)

	FY 1996	FY 1997	FY 1998
FACILITY OPERATIONS AND MAINTENANCE (cont'd)			
- Initiate treatment of 70,000 gallons of bulk sodium in ANL-W Sodium Processing Facility to reduce environmental and safety risks and to meet a Federal Facility Compliance Act Site Treatment Plan milestone (This is a one time activity for Waste Management in FY 1997 and will be completed by the Office of Nuclear Energy in FY 1998).	0	2,000	0
- Installed 100 new liners with cathodic protection at ANL-W to prevent soil contamination from sodium, spent fuel, spent fuel slugs and sodium/potassium (NaK) metal to reduce environmental and health risks.	411	0	0
Subtotal, Facility Operations and Maintenance	21,977	22,228	17,722
NEW FACILITIES			
- Complete rehabilitation of low-level waste (LLW) handling area in the ANL-E WM facility, Phase I of Project No. 91-E-600, to provide safe LLW storage, sorting, and handling. In FY 1997 rehabilitate liquid LLW area and upgrade fire safety systems Phase II of Project No. 91-E-600 (ANL-E).	787	2,066	0
- Provided for general plant projects.	535	0	0
Subtotal, New Facilities	1,322	2,066	0
SOLID WASTE			
- Completes Laboratory Waste Water Treatment Plant, 90-R-119.	1,200	0	0
Subtotal, Solid Waste	1,200	0	0
TOTAL, Chicago Operations Office	$25,322	$24,294	$17,722

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998: Chicago (cont'd)

FACILITY OPERATIONS AND MAINTENANCE - Waste Management (WM) function at two sites (ANL-W and Fermilab) transfer to the Office of Nuclear Energy and Energy Research under the re-engineering initiative to make WM more cost effective and efficient. Partial funding for the reengineering effort remains in this budget, and will be managed by the Office of Nuclear Energy in FY 1998. There is also a decrease in staff to reduce management redundancies and cost, and more use of the private sector for waste management and disposal.	($4,506)
NEW FACILITIES - Decrease reflects completed rehabilitation of WM building, Phase II of Project No. 91-E-600 at ANL-E.	($2,066)

WASTE MANAGEMENT - NON-DEFENSE

IDAHO

I. Mission Supporting Goals and Objectives

The Idaho Operations Office manages the technical aspects of the National Low-Level Waste Program (NLLWP). The major responsibilities of the NLLWP under the Low-Level Radioactive Waste Policy Amendments Act of 1985 (P.L. 99-240) are twofold: (1) provide technical assistance to states and low-level waste compact regions who are responsible for developing disposal capacity for commercially generated low-level waste; and (2) fulfill the Department's responsibility to develop disposal capacity for the Greater-Than-Class-C (GTCC) Low-Level Waste. This program directly supports Waste Management's goals and objectives that are discussed in the Overview.

The key goals and objectives of the NLLWP are accomplished through providing: workshops, technical reports, automated systems, and a variety of other work products based on specific requests from states; and critical information exchange opportunities through sponsoring the Low-Level Radioactive Waste Forum, the Host State Technical Coordinating Committee, and periodic national conferences on low-level waste management.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
New Facilities	$ 5,183	$ 0	$ 0	$ 0	0%
National Low-Level Waste	2,865	4,553	4,348	-205	-5%
TOTAL, Idaho	$ 8,048	$ 4,553	$ 4,348	$ -205	-5%

III. Performance Summary - Accomplishments: Idaho (cont'd)

	FY 1996	FY 1997	FY 1998
NEW FACILITIES	$5,183	$ 0	$ 0

Spent Nuclear Fuel - Dry Cask Storage Project

FY 1996
- Continued construction in FY 1996 for facility to safely place the Three Mile Island core debris into dry storage at the Idaho Chemical Processing Plant.

FY 1997
- Transferred responsibility and funding for SNF to the Environmental Management Office of Nuclear Material and Facility Stabilization.

NATIONAL LOW-LEVEL WASTE	2,865	4,553	4,348

- Program Management activities provide for technical support to the states and compact regions, and to address DOE's GTCC responsibilities.

FY 1996
- Completed a total of 24 workshops and other support requested by states and compact regions and developed analysis and plans to shift the planned FY 1996 National Conference on LLW management to FY 1997.
- Developed a comprehensive management plan for GTCC Low-Level Waste, and supported the Low-Level Radioactive Waste Forum through an independent grant process. (Note: scope remained essentially the same in FY 1996 and FY 1997. Prior year carry over funding was utilized for most of the technical support to states for FY 1996.)

III. Performance Summary - Accomplishments: Idaho (cont'd)

	FY 1996	FY 1997	FY 1998
NATIONAL LOW-LEVEL WASTE (cont'd)			

FY 1997
- Complete approximately 20 workshops and other specific support requests from states and compact regions consistent with priorities established with them.
- Support the most important communication and information exchange opportunities through the Low-Level Radioactive Waste Forum and the Host State Technical Coordinating Committee.
- Evaluate more innovative and cost effective ways of delivering the technical assistance to states required by current legislation.

FY 1998
- Assist with the technical needs of California as it continues through the land transfer process and Texas, Nebraska, and North Carolina as they complete their licensing processes;
- Assist states with active programs to address specific needs from other states/compact regions;
- Support the Low-Level Radioactive Waste Forum through an independent grant process;
- Implement more cost effective and innovative ways of delivering technical assistance to states identified in FY 1997 to support state development of a national disposal system for commercial LLW.

TOTAL, Idaho Operations Office	$8,048	$4,553	$4,348

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998:

NATIONAL LOW-LEVEL WASTE - Decrease reflects fewer workshops being done in FY 1998.	($205)

WASTE MANAGEMENT - NON-DEFENSE

OAKLAND

I. Mission Supporting Goals and Objectives

The Oakland Operations Office manages waste operations at the Laboratory for Energy-Related Health Research (LEHR), Lawrence Berkeley National Laboratory (LBNL), Lawrence Livermore National Laboratory (LLNL), and the Energy Technology Engineering Center (ETEC), and the Stanford Linear Accelerator Center (SLAC). The laboratories perform research in health effects of radiation exposure, energy research, and high energy particle physics. The sites generate small volumes of transuranic, mixed low-level waste, hazardous, and sanitary waste.

For a variety of reasons, the establishment and maintenance of a rigorous, compliant waste management program is the major issue facing small sites. The ability of small sites to manage their waste is further challenged by the fact that, due to the experiments they conduct, they produce a large number of small volume waste streams. The characterization, monitoring, and other regulatory requirements are the same whether a waste stream has an inventory of one, ten, or 100,000m^3. In addition, the State of California has an expanded list of chemicals it considers to be hazardous, and more material must be classified as hazardous waste in California than the Resource Conservation and Recover Act (RCRA) requires. This contributes to an increase in the cost of managing the waste.

Within this FY 1998 Request, the cost of managing newly generated waste associated with FY 1998 planned activities at the Stanford Linear Accelerator Center have been budgeted within the Office of Energy Research's Hi-Energy Physics program. During FY 1998 the Office of Energy Research will be responsible for the management of newly generated waste at SLAC.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Program Management	$ 1,398	$ 650	$ 0	$ -650	-999%
Facility Operations and Maintenance	9,171	11,244	10,717	-527	-5%
New Facilities	671	0	190	+190	+999%
TOTAL, Oakland	$ 11,240	$ 11,894	$10,907	$-987	-8%

III. Performance Summary - Accomplishments: Oakland (cont'd)

	FY 1996	FY 1997	FY 1998
PROGRAM MANAGEMENT			
- In FY 1996 supported Waste Minimization at various sites; in FY 1997 and FY 1998, Waste Minimization is funded under the Office of Nuclear Material and Facility Stabilization.	865	0	0
- In FY 1996 and FY 1997 provides for support of waste management program. In FY 1998 these funds are not required.	533	650	0
Subtotal, Program Management	1,398	650	0
FACILITY OPERATIONS AND MAINTENANCE			
Waste Management Base Program			
- Provide for the safe treatment, storage, transportation, and disposal of Hazardous, Radioactive, Transuranic (TRU), and Mixed Waste.			
- Begin operation of Hazardous Waste Handling Facility in FY 1997. In FY 1998 increase cleanout and disposal at ETEC, and increase legacy workoff at LBNL. In FY 1998, funding for SLAC ($2,750) will be transferred to the Office of Energy Research as part of the re-engineering effort.	9,171	11,244	10,717
Subtotal, Facility Operations and Maintenance	9,171	11,244	10,717
NEW FACILITIES			
- In FY 1996 initiated operational testing and startup of the Hazardous Waste Handling Facility (Project No. 88-R-812) at LBNL.	671	0	0
- Initiate GPP activity at LBNL.	0	0	190
Subtotal, New Facilities	671	0	190
TOTAL, Oakland Operations Office	$11,240	$11,894	$10,907

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998: Oakland (cont'd)

PROGRAM MANAGEMENT- Reflects elimination of non-defense support services to the Oakland Operations Office. ($650)

FACILITY OPERATIONS AND MAINTENANCE - Increase from FY 1997 to FY 1998 due to:
- Preparation for ultimate disposal of TRU legacy and increased mixed LLW disposal at ETEC and Lawrence Berkeley National Laboratory (LBNL) (+$2,223).
- Decrease due to transfer of SLAC WM ($-2,750) to the Office of Energy Research as part of the re-engineering effort. ($527)

NEW FACILITIES - Increase reflects initiation of minor general plant construction at Lawrence Berkeley National Laboratory in FY 1998. $190

WASTE MANAGEMENT - NON-DEFENSE

OAK RIDGE

I. Mission Supporting Goals and Objectives

The Oak Ridge National Laboratory (ORNL) non-defense funded waste management activities primarily involve storage and disposal of hazardous waste and treatment of gaseous, radiological, and non-radiological process waste. Major activities in FY 1998 include completion of the construction of the Bethel Valley Liquid Low-Level Waste System, Project 94-E-602, to meet the requirements of the Federal Facility Agreement and start-up of the Bethel Valley Low-Level Waste Collection and Transfer System, Project 88-R-830. These projects will allow safer operations and reduce risks.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Facility Operations and Maintenance	$ 7,680	$ 7,386	$ 5,473	$ -1,913	-26%
New Facilities	1,088	1,736	400	-1,336	-77%
Solid Waste	4,789	3,292	400	-2,892	-88%
TOTAL, Oak Ridge	$ 13,557	$ 12,414	$ 6,273	$ -6,141	-49%

III. Performance Summary - Accomplishments:

	FY 1996	FY 1997	FY 1998
FACILITY OPERATIONS AND MAINTENANCE	$ 7,680	$ 7,386	$ 5,473

- Treat radiological and non-radiological process waste water and collect, transport, store, and dispose of hazardous waste safely and in compliance with regulations. In FY 1998, process the waste water treatment facility will be fully funded under the Defense budget.

III. Performance Summary - Accomplishments: Oak Ridge (cont'd)

	FY 1996	FY 1997	FY 1998
NEW FACILITIES			
FY 1996 and FY 1997			
- Continued construction of Bethel Valley Federal Facility Agreement Liquid Low-Level Waste System Upgrade (94-E-602).	609	1,556	0
FY 1998			
- Complete Sanitary Waste System Upgrade (93-E-633) using carryover funding; and	479	180	0
- Funds operating support to complete the construction of the Bethel Valley Liquid Low-Level Waste System Upgrade Project (94-E-602) in compliance with the Federal Facility Agreement.	0	0	400
Subtotal, New Facilities	1,088	1,736	400
SOLID WASTE			
FY 1996 and FY 1997			
- Continued Melton Valley Liquid Low-Level Waste Collection and Transfer System Upgrades (92-E-601); and	414	225	0
- Complete the Bethel Valley Liquid Low-Level Waste Collection and Transfer System Upgrades (88-R-830).	4,375	3,067	0
FY 1998			
- Funds operating support to start-up the Bethel Valley Liquid Low-Level Waste Collection and Transfer System.	0	0	400
Subtotal, Solid Waste	4,789	3,292	400
TOTAL, Oak Ridge Operations Office	$13,557	$12,414	$ 6,273

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998: Oak Ridge (cont'd)

FACILITY OPERATIONS AND MAINTENANCE - Decrease due to transfer of the Process Waste Treatment Facility operations from partial non-defense funding to 100 percent defense funding.	($1,193)
NEW FACILITIES - Decrease due to completion of construction projects and transfer of all ongoing construction to new Energy Assets Acquisition appropriation.	($1,336)
SOLID WASTE - Decrease reflects completion of construction project.	($2,892)

WASTE MANAGEMENT - NON-DEFENSE

OHIO

I. Mission Supporting Goals and Objectives

The West Valley Demonstration Project (WVDP) is located at the Western New York Nuclear Service Center near West Valley, New York. The Center reprocessed Spent Nuclear Fuel (SNF) from 1966 to 1972. The purpose of the project is to demonstrate an integrated production scale project to vitrify 2,200 m^3 of high-level waste (HLW). Vitrification operations began in June 1996 and the primary campaign is scheduled for completion in June 1998. Vitrification of tank heels and heel residues will then continue for approximately two additional years. The benefit of this project is the conversion of a liquid waste form into a more stable solid waste form amenable to long-term storage pending development of a geologic repository.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
West Valley Demonstration Project	$115,289	$119,601	$ 113,201	-6,400	-5%
TOTAL, Ohio	$115,289	$119,601	$ 113,201	-6,400	-5%

III. Performance Summary - Accomplishments: Ohio (cont'd)

	FY 1996	FY 1997	FY 1998
Safe and Compliant Site Operations Necessary for Vitrification	$100,000	$93,000	$93,000

Includes operation of environmental and analytical laboratories and operation of Integrated Radwaste Treatment System.

FY 1996
- Completed Vitrification Facility testing;
- Conducted a Department of Energy Operational Readiness Review;
- Completed vitrification radioactive tie-ins (May 1996); and
- Completed first radioactive canister (July 1996) and solidified 26 radioactive canisters.

FY 1997
- Solidify approximately 120 canisters of high-level waste.

FY 1998
- Solidify approximately 125 canisters of high-level waste, completing Phase I vitrification campaign in June 1998.
- Begin processing tank heels.

Closure Planning, Waste Management, Site/Area Environmental Monitoring, and Remediation	15,289	26,601	20,201

FY 1996
- Published Phase II Draft Environmental Impact Statement (EIS);
- Continued treatment of North Plateau groundwater;
- Continued the Resource Conservation and Recovery Act (RCRA) Facility Investigation studies;
- Continued the Federal State Facilities Compliance Agreement/Federal Facilities Compliance Agreement (FSFCA/FFCA) mixed waste activities; and
- Initiated waste storage area structure replacement.

III. Performance Summary - Accomplishments: Ohio (cont'd)

	FY 1996	FY 1997	FY 1998
Closure Planning, Waste Management, Site/Area Environmental Monitoring, and Remediation (cont'd)			

FY 1997
- Publish Final Environmental Impact Statement;
- Prepare Record of Decision;
- Complete Citizen's Task Force review of EIS;
- Complete RCRA Facility Investigation studies;
- Continue treatment of North Plateau groundwater;
- Complete structural improvements to waste storage areas;
- Continue FSFCA/FFCA mixed waste activities; and
- Begin off-site low-level waste (LLW) shipments.

FY 1998
- Publish Phase II Record of Decision;
- Begin implementation of Record of Decision;
- Continue treatment of North Plateau groundwater pending the publication of the Record of Decision on the Phase II EIS, which will dictate future actions.
- Continue FSFCA/FFCA mixed waste activities; including off-site disposal of hazardous waste and preparation for disposal of other waste types pending the publication of the Record of Decision on the Phase II EIS, which will dictate future actions.
- Complete procurement/installation of tank heel removal equipment.

TOTAL, Ohio Field Office	$115,289	$119,601	$113,201

WASTE MANAGEMENT - NON-DEFENSE

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998:

Ohio: Decrease at West Valley is due to reduced scope in the areas of: abatement of main plant water infiltration, Phase II transition costs, facility maintenance and site support, and risk reduction activities associated with erosion/water control related to the North Plateau contaminated groundwater migration.	($6,400)

WASTE MANAGEMENT - NON-DEFENSE

RICHLAND

I. Mission Supporting Goals and Objectives

The Battelle Memorial Institute provides science and technology laboratory services to the Hanford Site at the Pacific Northwest National Laboratory (PNNL). Hot cells are used for a variety of radioactive analyses required by on and offsite missions, including cesium and strontium isotope capsules. In FY 1998, these activities are requested within the Nuclear Material and Facility Stabilization program budget.

II. Funding Schedule

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Facility Operations and Maintenance	$ 11,550	$ 10,506	$ 0	$-10,506	-100%
TOTAL, Richland	$ 11,550	$ 10,506	$ 0	$-10,506	-100%

III. Performance Summary - Accomplishments:

	FY 1996	FY 1997	FY 1998
FACILITY OPERATIONS AND MAINTENANCE			
- Support PNNL Non-Defense Waste Management surveillance and maintenance activities; continue the B-Cell cleanout project and support of Buildings 324 and 327. In FY 1998 funding will be requested by the Office of Nuclear Material and Facility Stabilization.	$11,550	$10,506	$ 0
TOTAL, Richland Operations Office	$11,550	$10,506	$ 0

EXPLANATION OF FUNDING CHANGES FROM FY 1997 TO FY 1998:

Decrease reflects transfer of B-Cell Cleanout Project and support of Building 324 and 327 to the Office of Nuclear Material and Facility Stabilization.	($10,506)

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY RESEARCH AND DEVELOPMENT
(Tabular dollars in thousands, narrative in whole dollars)

WASTE MANAGEMENT - NON-DEFENSE

CAPITAL OPERATING EXPENSES & CONSTRUCTION SUMMARY

Capital Project Summary Listing:

	FY 1996	FY 1997	FY 1998	$ Change	% Change
Operation and Maintenance:					
General Plant Projects	$ 261	$ 0	190	190	+999%
Capital Equipment Estimate	261	3,337	0	-3,337	-999%
Project Related Costs:					
1. CDRs 0	0	0	0	0%	
2. "Bridge" Costs	0	0	0	0	0%

Construction Funded:

Project No.	Project Title	TEC	Previous Approp.	FY 1996 Approp.	FY 1997 Approp.	FY 1998 Request		Unapprop Balance	
94-E-602	Bethel Valley Federal Fac. Agreement Upgrades, ORNL	13,800	10,494	300	1,106	0	a/	0	
93-E-900	Long-Term Storage of TMI-2 Fuel, INEL	25,500	14,484	4,048	0	0	b/	0	
92-E-601	Melton Valley Liquid Low-Level Waste Collection and Transfer System Upgrades	41,000	40,661	339	0	0		0	
91-E-600	Rehabilitation of Waste Management Bldg, 306, ANL	4,175	1,322	787	2,066	0		0	
90-R-119	Laboratory Waste Water Treatment Plant, CH	7,320	6,120	1,200	0	0		0	
88-R-812	Hazardous Waste Handling Facility, LBL	13,125	12,454	671	0	0		0	
88-R-830	Bethel Valley Liquid Low-Level Waste Collection and Transfer System Upgrade, ORNL	60,897	54,205	4,000	2,692	0		0	
	Subtotal, Construction Funded		$139,740	$11,345	$ 5,864	$ 0	a/	0	c/

WASTE MANAGEMENT - NON-DEFENSE

Construction Funded:

Project No. Project Title	TEC	Previous Approp.	FY 1996 Approp.	FY 1997 Approp.	FY 1998 Request	Unapprop Balance
Operating Expense Funded:						
West Valley Demonstration Project, West Valley, NY	N/A	$1,015,284	$115,289	$119,601	$113,201	$ N/A
TOTAL, Waste Management - Non-Defense		$1,155,024	$126,634	$125,465	$113,201	$ 0

a/ Reflects transfer of $1,900,000 to the Energy Assets Acquisition appropriation.
b/ Reflects transfer of Project No. 93-E-900 to the Office of Nuclear Material and Facility Stabilization in FY 1997.
c/ Reflects transfer of all capital construction requests to the Energy Assets Acquisition appropriation.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from FY 1997 Congressional Budget Request are denoted with a vertical line in left margin.)

OFFICE OF WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT OPERATING EXPENSES
(Tabular dollars in thousands. Narrative material in whole dollars.)

1.	Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. 2b.	Project No.: Operating Funded

SIGNIFICANT CHANGES

- No significant changes.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from FY 1997 Congressional Budget Request are denoted with a vertical line in left margin.)

OFFICE OF WASTE MANAGEMENT
ENERGY SUPPLY RESEARCH AND DEVELOPMENT OPERATING EXPENSES
(Tabular dollars in thousands. Narrative material in whole dollars.)

1. Title and Location of Project: West Valley Demonstration Project, West Valley, New York

2a. Project No.:
2b. Operating Funded

3a. Date A-E Work Initiated, (Title I Design Start Scheduled): 1st Qtr. FY 1982
3b. A-E Work (Titles I & II) Duration: 1st Qtr. FY 1990

5. Previous--construction cost estimate: N/A
Total Project Cost: N/A

	New York State + DOE Share	DOE Share
6. Project Cost through Phase I:	$1,483,900	$1,333,000 a/
Project cost for Phase I:	$1,393,550 b/	$1,254,150
Project cost for Phase II:	TBD c/	

4a. Date Physical Construction Starts: 2nd Qtr. FY 1984

4b. Date Phase I Ends: 3rd Qtr. FY 1998

7. Financial schedule (Federal Funds): d/

Fiscal Year	Appropriation	Adjustments	Obligations	Costs	
Previous	$ 770,036 e/		$ 768,854	$ 728,334	
1994	124,000	- 3,654 f/	120,346	131,400	
1995	127,247	- 2,524 g/	124,723	134,680	
1996	119,389	- 4,100 h/	115,289	125,400	
1997	119,601		119,325	114,211	
1998	113,201		113,201	113,201	(Thru 3 QTR.)
1999	113,201		113,201	113,201	
2000	113,201		113,201	113,201	
2001	113,201		114,659	129,171	

1.	Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. 2b.	Project No.: Operating Funded

7. Financial schedule (Federal Funds) (continued) d/

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a/ Completion date is through the completion of high-level waste solidification (Phase 1), which occurs in 3rd Qtr FY 1998. The total DOE share through Phase I of $1,333,000,000 occurs in 3rd Quarter of FY 1998. Completion date and total cost for the Phase II portion of the project has not been determined.

| b/ Does not include Phase II costs spent concurrently with Phase 1 activities.

| c/ Phase II costs include EIS activities, post-solidification operation (tank heel removal), high-level waste storage and transportation, and final decontamination and
| decommissioning activities. A definitive estimate for Phase II will be prepared after coordination with the Nuclear Regulatory Commission and the State of New York and preparation of appropriate environmental documents. Project has requested $90,350,000 through 3rd Quarter FY 1998 for scopes associated with Phase II, Federal Facilities Compliance Act, Federal/State Facility Compliance Agreement (FSFCA), and RCRA3008 (h) Administrative Order on Consent.

d/ It should be noted that this project is justified as an operating expense funded construction project. It has been reformatted only to comply with the revised DOE Order 5100.3. It is not intended to be funded as a capital line item.

e/ Reflects a reduction of $1,574,000 as a general reduction mandated by Congress in the FY 1993 Appropriation language and a reduction of $4,000,000 due to use of prior year balances per FY 1994 Appropriation.

f/ Reflects rescission of $3,654,000 for FY 1994.

| g/ Reflects reduction of $2,524,000 General Reduction.

| h/ Reflects reduction of $4,000,000 due to use of prior year balances and a $100,000 Non-Defense rescission.

8. Project Description, Justification and Scope

On October 1, 1980, Public Law 96-368, the West Valley Demonstration Project Act (WVDP Act) went into effect. This Act directed the Secretary of Energy to carry out a high-level radioactive waste management demonstration project at the Western New York Nuclear Service Center (WNYNSC) located in Cattaraugus County, near West Valley, New York. The WNYNSC is owned by the State of New York and is administered by the New York State Energy Research and Development Authority (NYSERDA).

1.	Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. 2b.	Project No.: Operating Funded

8. Project Description, Justification and Scope (continued)

The WNYNSC reprocessed nuclear fuel from 1966 to 1972. During that time, approximately 660,000 gallons of alkaline high-level waste was generated by this activity and stored in a carbon steel tank located in an underground vault. The alkaline waste is similar to that stored at the Department's Savannah River and Hanford sites in that these wastes also consist of a supernatant liquid and a sludge that has formed on the tank bottom. A smaller amount (about 12,000 gallons) of acidic Thorex waste, stored in a stainless steel tank located in a separate underground concrete vault, will also be treated. The project scope includes all activities undertaken in carrying out the solidification, including: (1) preparation of the Center's premises and facilities to accommodate the solidification project, including such decontamination of existing facilities and equipment as may be necessary or appropriate; (2) removal of the wastes from the underground storage tanks; (3) development, design, construction, and operation of systems and necessary supporting facilities for the solidification of the wastes; (4) acquisition of containers for the permanent disposal of the solidified waste; (5) temporary storage of the solidified waste followed by transportation to an appropriate Federal repository for permanent disposal; (6) decontamination and decommissioning (D&D) of the waste tanks and facilities, material and hardware used in carrying out the solidification of the wastes; and (7) disposal of low-level and transuranic wastes produced from project activities.

| Solidification of the HLW in borosilicate glass to produce a durable, solid waste form for permanent disposal ~~is currently scheduled to begin~~ began in FY 1996. This activity will result in the generation of approximately 300 glass filled stainless steel canisters to be stored at the Project until a Federal repository is available.

It should be noted that this project is justified as an operating expense funded Construction Line Item Project. Operating expense funds will be used to fund development, design, construction, site/facility operation, and decontamination and decommissioning activities associated with the project.

1. Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. Project No.: 2b. Operating Funded

9. Details of Cost Estimate

The costs shown are based on planned expenditures through 3rd Quarter FY 1998. These current estimates were developed based on an approved estimate, consider currently available and projected resources, and include the following types of costs associated with the West Valley project: R&D, design, construction, waste immobilization, decontamination and decommissioning of existing hot cells for project reuse, site/facility operation and maintenance, and project management. Also, included are estimates for new scopes associated with compliance with DOE orders and regulations in the safety and environmental areas. In addition, estimated costs for Phase II, EIS, RCRA 3008(h) Administrative Order on Consent, FFCA, and FSFCA through 3rd Quarter FY 1998 have also been included.

	Total Cost (in thousands)
Phase I:	
High-Level Waste Solidification	$ 442,500
Decontamination and Decommissioning	18,450
Site Operations	343,750
Project Support	189,550
Low-Level, Hazardous, and TRU Waste Management	257,200
Capital Equipment	1,200
General Plant Projects	1,500
Total DOE Cost Estimate	1,254,150
Non-DOE Cost (New York State Funding)	106,000
Total Project Cost	$ 1,360,150
NYSERDA Services/G&A/Facility Credit	33,400
Total Project Cost Estimate (Phase I)	1,393,550
Phase II:	
Phase II (DOE) thru Phase I (3rd Qtr. FY 1998)	78,850
Phase II (NYSERDA) thru Phase I (3rd Qtr. FY 1998)	11,500
Total Phase II costs thru Phase I (3rd Qtr. FY 1998)	90,350
Total Project Cost thru Phase I (3rd Qtr. FY 1998)	$1,483,900

1. Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. Project No.: 2b. Operating Funded

10. Method of Performance

(a) Schedule of Planned Activities

Activity	Start	Complete
Design, procurement and fabrication of Component Test Stand	2nd Qtr.FY 1983	4th Qtr. FY 1984
Component Test Stand operation	4th Qtr.FY 1985	1st Qtr. FY 1990
Supernatant Processing	3rd Qtr.FY 1988	2nd Qtr. FY 1991
Complete Vitrification Facility Construction	4th Qtr.FY 1985	4th Qtr. FY 1994
Vitrification facility checkout and testing	1st Qtr.FY 1994	1st Qtr. FY 1996
Vitrification of high-level waste (primary campaign)	3rd Qtr.FY 1996	3rd Qtr. FY 1998
Decontamination and Decommissioning	4th Qtr.FY 1998	Open

(b) Management and Contracting

The project is managed for the Department by an onsite project office, reporting through the Ohio Field Office, which is responsible for the day-to-day management and decision making. An operating contractor, West Valley Nuclear Services Company, Inc. (a wholly owned subsidiary of Westinghouse Electric Corporation), is responsible for the technical management of the high-level waste solidification related activities, site and facility operations, and decontamination and decommissioning. Approval by the Department's Field, Project and Headquarters Officers is required on matters affecting project policies and technical, cost and schedule baselines. The State of New York, through the New York State Energy Research and Development Authority, provides consultation and comment on project activities to the Department as required by the West Valley Demonstration Project Act and the cooperative agreement between the Department and the Authority. The Nuclear Regulatory Commission provides the Department with informal review and consultations with respect to any potential radiological danger to public health and safety that may be presented by the project. To the extent feasible, design, procurement, construction, and inspection will be by fixed-price contract and subcontracts awarded on the basis of competitive bids. However, due to the complexity of the work, it may be necessary to utilize cost plus fixed fee contracts for portions of the work. Award fee contracts will be used when justified. Contracting will be by the Department or the operating contractor, depending on the nature and scope of work. The project is supported by the Battelle Pacific Northwest National Laboratory, Richland, Washington, for development activities required to adopt waste treatment and solidification technology for the specific West Valley situation; and Science Applications International Corporation for development and review of the Environmental Impact Statement for completion of the West Valley Demonstration Project.

10. Method of Performance (continued)

(c) Prior Year Achievements (FY 1996)

Completed final integrated non-radioactive testing on the vitrification facility and completed operational Readiness Reviews leading to approval for radioactive vitrification operations. Vitrification of the high-level waste began.

Site operational support continued, including support services, maintenance, safety and environmental programs. Environmental and analytical laboratories operated in support of ongoing operations and vitrification processing. The draft Environmental Impact Statement public review and comment resolution was completed.

(d) Current Year Achievements (FY 1997)

High-Level Waste vitrification production campaign continues. Site operational support including maintenance, safety and environmental programs continues. Environmental and Analytical Laboratories operate in support of vitrification processing. The Phase II Record-of-Decision is under preparation. The High-Level Waste tank and plant stabilization activities are initiated.

(e) Budget Year Achievements (FY 1998)

Phase I of the high-level waste (HLW) vitrification production campaign will be completed. HLW tank and plant stabilization activities will continue as the project transitions into Phase II. The Phase II Record of Decision is issued. Planning for subsequent implementation of the Phase II Record-of-Decision will begin. Site operational support, including maintenance, safety, and environmental programs will continue. Environmental and analytical laboratories will operate in support of vitrification.

1. Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. Project No.: 2b. Operating Funded

11. Schedule of Project Funding and Other Related Funding Requirements

Project Budget a/	Prior	FY1996	FY1997	FY 1998	FY 1999 b/	Total
1. Operating Funded TEC Construction	206,000	0	0	0	0	206,000
2. Facility Other Operating	924,173	128,889	132,901	125,901	125,901	1,437,765
3. Total WVDP	1,130,173	128,889	132,901	125,901	125,901	1,643,765
4. DOE Funds	1,013,923	115,289	119,601	113,201	113,201	1,475,215
5. NYS Funds	116,250	13,600	13,300	12,700	12,700	168,550

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a/ Data is actual and proposed budget authorization.

b/ Cost sharing ratio for Phase II between DOE and NYS not yet determined.

1. Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. Project No.: 2b. Operating Funded

12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements

High-Level Waste Solidification

This category provides for development, design, construction, and operating activities related to immobilization and preparation of the high-level waste for permanent disposal.

(1) Development - Includes confirmatory or prototype development program, including Component Test Stand and mockups. This activity is based on adapting existing technology from the base Nuclear Energy and Defense waste management program to meet specific West Valley requirements.

(2) Design - Includes conceptual, preliminary and final design, inspection services, system(s) acceptance testing, and facility startup.

(3) Building and structures - Includes modification and construction of facilities (e.g. Component Test Stand) for waste solidification and supporting system/activities, field offices, and storage sheds.

(4) Special Equipment - Includes waste removal, transfer, solidification, and other systems necessary to carry out the waste immobilization and supernatant treatment program.

(5) Operating - Includes labor and material costs, including steel canisters, for the waste processing operations.

Decontamination and Decommissioning

This category covers the planning, engineering, equipment, and operations necessary for project D&D. It provides for the initial decontamination to prepare contaminated areas and hot cells for reuse by the project.

Site Operations

This category includes site/facility operations, training, maintenance, restoration, and upgrades (e.g., electrical and water supply system, roads, roofs, etc.) necessary to support waste solidification, decommissioning, environmental and occupational safety and monitoring, security and safeguards requirements.

1. Title and Location of Project:	West Valley Demonstration Project, West Valley, New York	2a. Project No.: 2b. Operating Funded

12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements (continued)

Project Support

This category provides for technical, administrative, and overall management control of the project. Activities performed support other project elements and include items such as cost/schedule control systems, project reports, quality assurance program, public communication program, records management, analytical chemistry, radiation safety and control for project safety monitoring, drafting, and estimating.

Low-Level, Hazardous and TRU Waste Management

This category includes the Supernatant Treatment System, Cement Solidification System, Liquid Waste Treatment System, and Drum Cell System for Low-level waste handling; size reduction and TRU Decon Facility and TRU Interim Storage Facility for handling of TRU waste generated from high-level waste handling and processing and in the decontamination and decommissioning of the process building, and the continued management of hazardous and mixed waste.

Capital Equipment

This category provides equipment used in initial site takeover operations and restoration activities, such as health physics and environmental monitoring instrumentation and equipment, decontamination and decommissioning tools and equipment, manipulators and hot cells lights, and analytical chemical laboratory equipment.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL MANAGEMENT

PROGRAM MISSION

The Administration is proposing a new appropriation account in FY 1998 in response to the Government Performance and Results Act of 1993, the Federal Acquisition Streamlining Act of 1994, and the Information Technology Management Reform Act of 1996. Each of these laws are designed to improve the way in which the government plans, budgets, acquires, and accounts for fixed assets.

Fixed asset funding under the Environmental Management program provides for refurbishing or replacing inadequate facilities and infrastructure to meet modern environmental compliance requirements. Support is provided to the Oak Ridge National Laboratory and the Idaho National Engineering Laboratory. Budget authority of $2,297,000 is requested to fully fund completion of two ongoing projects.

The following tables display the projects requested in FY 1998 by the Environmental Management program they support and by field office. After the tabular material are the individual construction project data sheets describing the project and pertinent financial data.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Dollars in Thousands)

ENVIRONMENTAL MANAGEMENT

PROGRAM FUNDING PROFILE
Construction Summary

Project No.	Project Title	TEC	Previous Approp.	FY 1996 Approp.	FY 1997 Approp.	FY 1998 Request	Unapprop Balance
Waste Management (WM)							
94-E-602	Bethel Valley Federal Facility Agreement Upgrade, ORNL	$13,800	a/	a/	a/	$1,900	$ 0
Subtotal, Waste Management		$13,800				$1,900	$ 0
Nuclear Material and Facility Stabilization (NMFS)							
93-E-900	Long-Term Storage of TMI-2 Fuel, INEL	25,500	a/	a/	a/	397	0
Subtotal, Nuclear Material and Facility Stabilization		25,500				397	0
TOTAL, ENVIRONMENTAL MANAGEMENT ENERGY ASSETS ACQUISITION		**$39,300**				**$2,297**	**$ 0**

a/ Appropriated under Energy Supply Research and Development Activites Appropriation, Environmental Management Non-Defense account.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Dollars in Thousands)

ENVIRONMENTAL MANAGEMENT

PROGRAM FUNDING BY SITE

SITE		FY 1998 REQUEST	UNAPPROP. BALANCE
Oak Ridge Operations Office			
94-E-602	Bethel Valley FFA Upgrades (WM)	$ 1,900	$ 0
Idaho Operations Office			
93-E-900	Long-Term Storage of TMI-2 Fuel (NMFS)	397	0
TOTAL - ENVIRONMENTAL MANAGEMENT ENERGY ASSETS ACQUISITION		**$2,297**	**$ 0**

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from FY 1997 Congressional Budget Request are denoted with a vertical line in left margin.)

ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands. Narrative material in whole dollars.)

Office of Waste Management

1.	Title and Location of Project:	Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee	2a. 2b.	Project No.: 94-E-602 Plant and Construction

SIGNIFICANT CHANGES

- Accelerates construction completion 2 years from 1st. Quarter, 2000 to 2nd. Quarter, 1998, reducing TEC $8,200,000.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from FY 1997 Congressional Budget Request are denoted with a vertical line in left margin.)

ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands. Narrative material in whole dollars.)

Office of Waste Management

1. Title and Location of Project: Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee

2a. Project No.: 94-E-602
2b. Plant and Construction

3a. Date A-E Work Initiated (Title I Design Start Scheduled): 2nd Qtr. FY 1994

3b. A-E Work (Titles I & II) Duration: 15 months

5. Previous Cost Estimate:
Total Estimated Cost (TEC) -- $22,000
Total Project Cost (TPC) -- $25,510

4a. Date Physical Construction Starts: 2nd Qtr. FY 1995

* 4b. Date Construction Ends: 2nd. Qtr. FY 1998 b/

6. Current Cost Estimate:
TEC -- $13,800 b/
TPC -- $16,589

7. Financial Schedule (Federal Funds)

Fiscal Year	Appropriation	Adjustments	Obligations	Costs
1994	$ 3,600	- 106 a/	$ 3,494	$ 1,442
1995	7,000		7,000	2,687
1996	300		300	856
1997	1,106		1,106	4,900
1998	1,900		1,900	3,915

a/ Congressionally mandated rescission.
b/ Accelerates construction completion two years from 1st. Quarter, 2000 to 2nd. Quarter, 1998, reducing TEC $8,200,000.

1. Title and Location of Project: Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee

2a. Project No.: 94-E-602
2b. Plant and Construction

8. Project Description, Justification and Scope

Decision Unit: Waste Management - Non-Defense

TEC	PREV.	FY 1996	FY 1997	FY 1998	OUTYEAR	CONSTRUCTION START-COMPLETION DATES
$13,800	$10,494	$ 300	$ 1,106	$ 1,900	$ 0	2nd Qtr.. FY 1995 - 2ND Qtr.. FY 1998

The proposed project will upgrade a portion of the existing Bethel Valley liquid low-level waste (LLW) collection and transfer (CAT) system at Oak Ridge National Laboratory (ORNL) with the best available technology for satisfying regulatory requirements. The scope of work covered under this project upgrades facilities to meet the requirements of the recently approved Federal Facility Agreement (FFA) between the Department of Energy (DOE), Tennessee Department of Environment and Conservation (TDEC), and the Environmental Protection Agency (EPA).

These upgrades involve the rerouting of LLW drains to the process waste system, addition of drip trays, upgraded leakage detection and control instrumentation, and the addition of a new valve pit.

* FY 1998 funding will be used to complete procurement and continue construction activities.

A-E work was completed in the 3rd quarter of FY 1995.

Currently, portions of the existing LLW-CAT system are still constructed of 40-year-old technology, which is rapidly deteriorating. More than 30 contaminated leak sites have been documented against the existing system, most of those occurring in the last 10-15 years of operation. The most notable incident occurred January 23, 1985, with a release of Sr-90 into the Sewage Treatment Plant. Several days later, the concentration of Sr-90 at White Oak Dam increased by a factor of 3, exceeding the DOE average monthly limit. After an intensive two-month effort to locate the source of contamination, a broken LLW pipeline was discovered at the Manipulator Repair Facility with a 7-foot-deep hole directly underneath the breakpoint. This type of accident is typical of those expected to occur at an increasing rate as the system gets older and deterioration continues. Hence, this project is urgently needed to continue the upgrades and stop the recurring leaks of low-level waste with their potential for adverse safety, health, and environmental impact.

8. Project Description, Justification and Scope (continued)

During the 1970s, 1980s and continuing into the 1990s, the number of regulations have dramatically increased in the areas of radioactive and hazardous waste management. In late 1977, early 1978, the Clean Water Act (CWA) was issued by the federal government and the Water Quality Control Act was issued by the State of Tennessee. These acts complement each other and basically require that discharges of pollutants into public waters be eliminated. In April 1985, DOE issued Order 5480.14 requiring that its operating contractors implement the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) program. This DOE order requires: (1) the identification and quantification of the presence of hazardous substances that may cause an unacceptable risk to health, safety, and environment; (2) the establishment and implementation of a plan for eliminating sources of contamination and completing the remedial actions necessary for cleanup; and (3) verifying that the actions taken have been successful. In addition, DOE Order 5480.14, addresses the Resource Conservation and Recovery Act (RCRA), and the Clean Water Acts (CWA) which also apply.

DOE, EPA, and TDEC have developed criteria for upgrading the LLW-CAT system. These criteria are, in most respects, the same as EPA's requirements for hazardous waste storage and treatment systems defined in the RCRA. These criteria, promulgated under 40 CFR Parts 260-266 and 270 requires double containment, active leak detection, and corrosion protection of critical contact surfaces. The FFA has been negotiated among the DOE, the EPA and the TDEC and became effective January 1, 1992. It establishes firm schedules for compliance with the applicable regulations.

The project will eliminate additional sources for leaks of low-level waste with their potential for adverse safety, health, and environmental impacts. It will bring the affected facility LLW-CAT into compliance with applicable regulations and will facilitate fulfillment of the FFA.

This project does not include any standalone, FFA-related work of GPP size.

1. Title and Location of Project: Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee

2a. Project No.: 94-E-602
2b. Plant and Construction

9. Details of Cost Estimate

	Item Cost	Total Cost
a. Design and Management costs		$ 4,644
1. Engineering design and inspection at approximately 41.9 percent of construction costs, Item c (Design, Drawings, and Specifications: $1,725,000)	$ 3,634	
2. Construction Management Costs	530	
3. Project management at 6.9 percent of construction costs (item c)	480	
b. Land and land rights	0	
c. Construction costs		6,510
1. Improvements to land	0	
2. Buildings	95	
3. Other structures	154	
4. Utilities	442	
5. Special facilities	5,819	
d. Standard equipment		0
e. Major computer items		0
f. Removal cost less salvage		0
g. Design and project liaison, testing, checkout and acceptance		406
h. Subtotal		$11,560
i. Contingencies at approximately 20 percent of above costs		2,240
j. Total line-item cost (section 12, a. 1. (a)		$13,800
k. LESS: Non-Federal contribution		0
l. Net Federal total estimated cost (TEC)		$13,800

1. Title and Location of Project: Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee

2a. Project No.: 94-E-602
2b. Plant and Construction

10. Method of Performance

DOE-ORO will provide overall project management.

Design was performed under a negotiated architect-engineer contract and inspection may be performed either by the operating contractor or the architect-engineer. To the extent feasible, construction and procurement will be accomplished by fixed-price contracts and subcontracts awarded on the basis of competitive bidding administered by the construction manager.

11. Schedule of Project Funding and Other Related Funding Requirements

	Previous Years	FY 1996	FY 1997	FY 1998	Outyears	TOTAL
a. Total facility costs						
1. Total facility costs						
(a) Line item (Section 9.j)	$ 4,129	$ 856	$ 4,900	$ 3,915	$ 0	$ 13,800
(b) Plant engineering and design	0	0	0	0	0	0
(c) Operating Expense Funded equipment	0	0	0	0	0	0
(d) Inventories	0	0	0	0	0	0
(e) Total fac. costs (Federal and Non-Federal)	$ 4,129	$ 856	$ 4,900	$ 3,915	$ 0	$ 13,800
2. Other project costs						
(a) R&D necessary to complete project	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
(b) Conceptual design costs	730	0	0	0	0	730
(c) Decontamination & decommissioning (D&D)	0	0	0	0	0	0
(d) NEPA documentation costs	100	0	0	0	0	100
(e) Other project-related costs	800	309	450	400	0	1,959
(f) Total other project costs	$ 1,630	$ 309	$ 450	$ 400	$ 0	$ 2,789
(g) Total project costs	$ 5,759	$ 1,165	$ 5,350	$ 4,315	$ 0	$ 16,589
(h) LESS: Non-Federal contribution	0	0	0	0	0	0
(i) Net Federal total project cost (TPC)	$ 5,759	$ 1,165	$ 5,350	$ 4,315	$ 0	$ 16,589

11. Schedule of Project Funding and Other Related Funding Requirements (continued)

b. Related annual funding (estimated useful life of each facility--30 years)

1.	Facility operating costs	$ 100
2.	Facility maintenance and repair costs	38
3.	Programmatic operating expenses directly related to the facility	20
4.	Capital equipment not related to construction but related to the programmatic effort in the facility	20
5.	GPP or other construction related to the programmatic effort in the facility	0
6.	Utility costs	2
7.	Other costs	20
	Total related annual funding	$ 200

12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements

a. Total Project Costs

(1) Total facility costs

(a) Line-Item (Section 9.j) - Construction line-item cost for design, procurement, and construction of the Bethel Valley FFA Upgrade Project are estimated to be $13,800,000. This includes approximately $178,500 for readiness reviews in accordance with DOE Order 5480.31.

(b) Plant engineering and design - No narrative required.

(c) Expense-funded equipment - No narrative required.

(d) Inventories - No narrative required.

(2) Other project costs

(a) R&D necessary to complete construction - No narrative required.

(b) Conceptual design - The conceptual design was completed in June 1992 at an approximate cost of $730,000. This includes preparation of a Project Safety Assessment (SA).

(c) Decontamination & Decommissioning (D&D) - No narrative required

(d) NEPA documentation costs - Costs for NEPA documentation and activities are estimated to be $100,000 are included for preparation of the National Environmental Policy Act (NEPA) documentation and activities.

(e) Other project related cost - Other project related costs of $1,959,000 include activities associated with requirements definition, project validation, readiness reviews, project management plan, QA planning and other miscellaneous supporting project documents.

(f) Non-Federal contribution - No narrative required.

1. Title and Location of Project:	Bethel Valley Federal Facility Agreement Upgrade, Oak Ridge National Laboratory, Oak Ridge, Tennessee	2a. Project No.: 94-E-602 2b. Plant and Construction

12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements (continued)

b. Related Annual Funding

(1) Facility operating costs - The annual costs to operate and maintain the system is estimated at $100,000, including personnel, operational sampling and analysis, health physics, industrial hygiene and quality inspection.

(2) Facility maintenance and repair costs - The annual costs of $38,000 are for facility maintenance and repairs as required.

(3) Programmatic operating expenses directly related to the facility - The additional annual programmatic expenses of $20,000 includes the cost of personnel needed for performance tracking and reporting, and budgeting.

(4) Capital equipment not related to construction but related to the programmatic effort in the facility - Capital equipment in support of the BV FFA is estimated to cost approximately $20,000 for replacement equipment and upgrades necessary to meet changing environmental, industrial safety, and health and safety requirements.

(5) GPP or other construction related to programmatic effort in the facility - No narrative required.

(6) Utility costs - Annual costs of $2,000 are included for utilities.

(7) Other costs - Funding of $20,000 is for miscellaneous costs which are not covered above.

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(Tabular dollars in thousands, narrative in whole dollars)

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

PROGRAM MISSION

The Office of Nuclear Material and Facility Stabilization protects workers, the public, and the environment from exposure and contamination associated with radioactive and hazardous wastes and materials contained within these facilities. The purpose of the Office of Nuclear Material and Facility Stabilization is to stabilize and store nuclear materials and deactivate surplus facilities in a safe, timely, and cost beneficial manner. The majority of facilities and materials associated with this program were used for research and development missions that have subsequently been completed. Most of these facilities were not designed for long-term storage of nuclear materials and waste. Additionally, many of the facilities have exceeded their design life and the physical condition of these facilities is deteriorating. Consequently, the costs and risks associated with safely maintaining these facilities and materials are increasing. A comprehensive program has been established to deactivate the facilities and to stabilize and/or remove hazardous and radioactive materials and wastes in order to reduce the funding requirements associated with these surplus facilities. This program seeks to actively identify, plan, and execute projects to accomplish this reduction in funding requirements.

Milestones have been established for the stabilization of materials so that the most urgent risks are addressed first. Furthermore, as nuclear materials are placed in a more stable form, actions are being taken in a timely and cost-efficient manner as possible to stabilize and deactivate the contaminated surplus facilities. Examples of non-defense activities include the cleanout activities in B Cell in Building 324 at Richland; removal of spent nuclear fuel from the Material Test Reactor (MTR) at Idaho; and removal of fuel from the Bulk Shielding Facility and radioactive sources from Buildings 7700B and 7704 at Oak Ridge.

All deactivation, stabilization, and maintenance activities are conducted with full participation of involved stakeholders. The interests of stakeholder groups encompass environmental protection, individual safety and proper management of surplus facilities located across the country. Their interests focus on activities with major facilities located in Idaho, Ohio, Tennessee, and Washington.

The Office of Site Operations is developing an integrated, systematic approach to site closure requiring an Environmental Management effort which will serve as a model for the eventual shutdown and ultimate disposal of Mound and other DOE sites slated for final cleanup and disposal; and manage the transportation and hazardous materials and packaging safety programs to ensure safety in all modes of transport, including air, rail, water, highway, and pipeline. It also includes the Pollution Prevention program, which implements Department-wide and site-specific policy

and guidance necessary to implement pollution prevention activities. The specific activities to be undertaken by individual sites for FY 1998 depend on their progress in FY 1997 in waste reduction relative to the Department's pollution prevention/waste reduction goals. Activities such as segregration programs for non-contaminated materials and increased recycling of resuable materials will be used to achieve
waste reduciton. Site-specific Pollution Prevention plans are being updated by all major sites to reflect activities and funding needed to support the Department-wide goals. These revised plans are due to be submitted to DOE Headquarters by May 31, 1997.

For the past three years a major component of the Non-Defense deactivation program has been the Fast Flux Test Facility (FFTF). Recently, however, the Department has decided to place FFTF in a hot standby status pending a scheduled December 1998 determination on the possible role of this reactor as a new tritrum supply source in support of the Nations nuclear weapons stockpile. This being the case, the Department may subsequently submit an FY 1998 budget amendment to reflect this consideration of FFTF for a tritium supply mission.

In FY 1998, deactivation of the Power Burst Facility is a privatization initiative, therefore, funds are requested in the Privatization budget.

Some of the most noteworthy facilities and materials under the purview of the Office of Nuclear Material and Facility Stabilization include:

- 8 nuclear reactors
- 19 radioactive processing buildings
- 260,000 gallons of radioactive metallic sodium
- 100,000 gallons of uncontaminated metallic sodium
- Semi-Works Cave area at the Mound Plant.

The GOALS of the Nuclear Material and Facility Stabilization program are to:

- Reduce risks by:
  - the timely deactivation and stabilization of surplus contaminated facilities like the B Cell at Richland
  - effectively treating, packaging and storing spent nuclear fuel located at DOE sites
- Lower the mortgage cost of doing business by conducting deactivation projects at Building 337 at Richland and Buildings 3038, 3026 and 3517 at Oak Ridge.
- Reduce the generation and releases of wastes and pollutants.
- Develop a "lesson learned" package, based upon the experience derived from cleaning up and disposing of the Mound Plant, in order to expedite the process at other small DOE sites.
- Support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

The OBJECTIVES related to these goals are to:

- Achieve progress toward safe, secure, interim dry storage of DOE spent nuclear fuel and resolution of risks and vulnerabilities associated with the fuel by placing the fuel removed from the Materials Test Reactor canal in interim dry storage; by completing fuel removal activities at facilities in Oak Ridge (Bulk Shielding Facility) and washing and shipping contaminated fuel assemblies located in Richland in FY 1998.
- Plan and accomplish deactivation projects at facilities where it has been demonstrated that significant mortgage reduction opportunities exits.
- Complete decontamination of the Semi-Works Cave area at the Mound Plant as part of the total cleanup effort and disposition of the Mound facility by FY 2003.
- Implement policies and practices that will encourage all operations.
- Establish and maintain an incentive program that makes the waste generators accountable financially and managerially for their reduction of generated waste.
- To meet the Department's pollution prevention reduction goals. Progress towards meeting the Department's six pollution prevention goals by December 31, 1999. They are as follows:
  - Reduce by 50 percent the generation of radioactive waste.
  - Reduce by 50 percent the generation of hazardous waste.
  - Reduce by 50 percent the generation of low-level mixed waste.
  - Reduce by 33 percent the generation of sanitary waste.
  - Recycle 33 percent of sanitary waste from all operations.
  - Increase procurement of Environmental Protection Agency designated recycled products to 100 percent, except where they are not commercially available at a reasonable price or do not meet performance standards.

PERFORMANCE MEASURES:

The performance measures are utilized by both Headquarters and field personnel to evaluate the effectiveness and efficiency of the accomplishments of the mission of the Nuclear Material and Facility Stabilization program. These measures are designed to demonstrate progress in simple and direct terms by providing an outcome-based perspective on actual physical accomplishments. These measures are tied directly to the EM mission, vision, goals, and the Ten Year Plan process. However, because of the Ten Year Plan, EM is still developing a comprehensive set of performance measures.

PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

The following mission accomplishment measures will be utilized:

- Number of buildings deactivated - one building will be fully deactivated (Materials Test Reactor Canal) in FY 1998.
- Spent nuclear fuel stabilized (in metric tons heavy metal and in cubic meters).
- Spent nuclear fuel disposition ready (in metric tons heavy metal and in cubic meters).

FISCAL YEAR 1998 BUDGET STRUCTURE

The Nuclear Material and Facility Stabilization's budget is structured in five appropriations. The first appropriation, the Defense Environmental Restoration and Waste Management, focuses on activities related to the management and stabilization of weapons related facilities, landlord, site closures, transportation management and pollution prevention activities. The second appropriation, Energy Supply, Research and Development, focuses on DOE activities independent of the weapons related program site closure, packaging certifications and pollution prevention activities. The third and fourth appropriations are associated with the National Defense Asset Acquisition and the Energy Assets Acquisition which includes construction, major rehabilitation and the purchase of major items such as land or buildings supporting the Defense Environmental Restoration and Waste Management and the Energy Supply, Research and Development appropriations. The fifth appropriation, Defense Environmental Management Privatization, is an initiative to change the acquisition strategy for selected projects and activities from cost plus contracting via the Management and Operating contractors, to fixed-price open competition.

Within the Energy Supply, Research and Development appropriation, the Nuclear Material and Facility Stabilization program accomplishes its mission by supporting various activities to deactivate surplus, contaminated facilities, and provide leadership for crosscutting issues and topics raised by the field and/or Headquarters by serving as facilitator, ombudsman, and/or coordinator. The Energy Supply, Research and Development appropriation funds activities in the following six categories:

1. Surveillance and Maintenance

   Funds all activities that maintain surplus and transferred buildings with required functions (i.e., surveillance and maintenance of fire, safety and life support systems, building support, and essential services as specified by Operational Safety Requirements). This category includes system/facility monitoring, corrective and preventive maintenance.

PROGRAM MISSION - NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

2. Stabilization

   Funds all activities where the intent is to convert nuclear material to a stable form suitable for storage, either safe interim or long-term, depending upon the programmatic plans for the material. This would include staging, preparation, and operations actions. These actions are taken to both manage and reduce risks.

3. Deactivation

   Funds all activities where the intent is to minimize the risks, hazards, and associated costs at facilities and to make those facilities available for potential re-use or eventual decontamination and decommissioning. While these activities can include material handling and movement activities similar to stabilization (but not processing), the intent of such activity is not to achieve an end point (or interim end point) for the material, but to remove the material with the goal of readying the facility/system for the preferred end state.

4. Mound Project Office

   Funds all activities associated with the decontamination and decommissioning (D&D) of non-defense facilities at Mound.

5. Packaging Certification and Transportation Safety

   Funds all activities for ensuring that departmental and contractor personnel and hazardous materials substances, and wastes are transported safely to ensure worker health, public safety, and environmental protection.

6. Pollution Prevention

   Funds all activities whose purpose is to minimize the amount of waste and pollutants generated by: (1) avoiding generation, or (2) recycling, to include administrative, policy, or technical initiatives.

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(Dollars in thousands)

PROGRAM FUNDING PROFILE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Subprogram	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
Surveillance and Maintenance	$44,862	$51,417	$ 0	$51,417	$39,865
Stabilization	0	1,160	0	1,160	357
Deactivation	28,140	18,184	0	18,184	24,927
Mound Project Office	0	1,021	0	1,021	1,003
Packaging Certification and Transportation Safety	0 *	0 *	0	0 *	4,700
Pollution Prevention	0	1,318	0	1,318	906
Subtotal, Operations and Maintenance	73,002	73,100	0	73,100	71,758
Construction	0	6,571	0	6,571	0
TOTAL	$73,002	$79,671	$ 0	$79,671	$71,758

Public Law Authorizations
95-91, Department of Energy Organization Act (1977)
104-206, The Energy and Water Development Appropriations Act, Fiscal Year 1997

* Funds appropriated in the Environment, Safety and Health budget in FY 1996 ($4,500,000) and FY 1997 ($4,700,000).

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PROGRAM FUNDING BY SITE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Field Offices/Sites	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
ALBUQUERQUE OPERATIONS OFFICE					
Albuquerque Operations Office (NM)	$ 0	$ 40	$ 0	$ 40	$ 36
CHICAGO OPERATIONS OFFICE					
Chicago Operations Office (IL)	$ 0	$ 413	$ 0	$ 413	$ 1,740
IDAHO OPERATIONS OFFICE					
Idaho National Engineering Laboratory (ID)	$ 7,999	$ 10,881	$ 0	$ 10,881	$ 2,501
OAKLAND OPERATIONS OFFICE					
Energy Technology Engineering Center (CA)	$ 640	$ 13,391	$ 0	$ 13,391	$ 0
Lawrence Berkeley National Laboratory (CA)	1,246	419	0	419	0
Oakland Operations Office (CA)	0	500	0	500	2,770
Subtotal, OAKLAND	$ 1,886	$ 14,310	$ 0	$ 14,310	$ 2,770
OAK RIDGE OPERATIONS OFFICE					
Oak Ridge National Laboratory (TN)	$ 13,894	$ 12,242	$ 0	$ 12,242	$ 8,982

PROGRAM FUNDING BY SITE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Field Offices/Sites	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
OHIO FIELD OFFICE					
Mound Plant (OH)	$ 0	$ 1,021	$ 0	$ 1,021	$ 1,003
West Valley (NY)	0	1,068	0	1,068	2,195
Subtotal, OHIO	$ 0	$ 2,089	$ 0	$ 2,089	$ 3,198
RICHLAND OPERATIONS OFFICE					
Hanford Site (WA)	$49,223	$39,696	$ 0	$39,696	$ 52,531
TOTAL, NUCLEAR MATERIAL AND FACILITY STABILIZATION	$73,002	$79,671	$ 0	$79,671	$71,758

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(Dollars in thousands)

PROGRAM FUNDING BY FUND TYPE

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Field Offices	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
ALBUQUERQUE OPERATIONS OFFICE					
Operating Expenses	$ 0	$ 40	$ 0	$ 40	$ 36
CHICAGO OPERATIONS OFFICE					
Operating Expenses	$ 0	$ 413	$ 0	$ 413	$ 1,740
IDAHO OPERATIONS OFFICE					
Operating Expenses	$ 7,999	$ 4,310	$ 0	$ 4,310	$ 2,501
Construction	0	6,571	0	6,571	0
Subtotal, IDAHO	$ 7,999	$10,881	$ 0	$10,881	$ 2,501
OAKLAND OPERATIONS OFFICE					
Operating Expenses	$ 1,886	$14,310	$ 0	$14,310	$ 2,770
OAK RIDGE OPERATIONS OFFICE					
Operating Expenses	$13,894	$12,242	$ 0	$12,242	$ 8,982
OHIO FIELD OFFICE					
Operating Expenses	$ 0	$ 2,089	$ 0	$ 2,089	$ 3,198

PROGRAM FUNDING BY FUND TYPE - NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Field Offices	FY 1996 Current Appropriation	FY 1997 Original Appropriation	FY 1997 Adjustments	FY 1997 Current Appropriation	FY 1998 Budget Request
RICHLAND OPERATIONS OFFICE					
Operating Expenses	$49,023	$39,479	$ 0	$39,479	$52,305
Capital Equipment	200	217	0	217	226
Subtotal, RICHLAND	$49,223	$39,696	$ 0	$39,696	$52,531
TOTAL, NUCLEAR MATERIAL AND FACILITY STABILIZATION	$73,002	$79,671	$ 0	$79,671	$71,758

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY, RESEARCH AND DEVELOPMENT

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

ALBUQUERQUE

I. Mission Supporting Goals and Objectives:

Albuquerque Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of low level radioactive waste and sanitary waste to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders, including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

II. Funding Schedule:

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Pollution Prevention	$0	$40	$36	-4	-10%
TOTAL, Albuquerque	$0	$40	$36	-4	-10%

III. Performance Summary - Accomplishments: Albuquerque

	FY 1996	FY 1997	FY 1998
Pollution Prevention			
• In FY 1996 funds were appropriated in the Waste Management program. In FY 1997 and FY 1998 will resume waste reduction efforts for low-level radioactive waste and sanitary waste to achieve the Secretarial goals for the Department.	$0	$40	$36
TOTAL, Pollution Prevention	$0	$40	$36

Significant Funding Changes From FY 1997 to FY 1998: Albuquerque

- None.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

CHICAGO

I. Mission Supporting Goals and Objectives:

Chicago Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of hazardous and sanitary wastes to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Packaging Certification and Transportation Safety program ensures that departmental and contractor personnel, hazardous materials, substances, and wastes are transported safely to ensure worker health, public safety, and environmental protection. Chicago Operations Office will conduct a program of reviews and confirmatory analyses of Safety Analysis Reports for Packagings (SARP) for radioactive materials to verify compliance of the packaging designs with safety requirements. These packages must conform to the requirements of the U.S. Department of Transportation and the U.S. Nuclear Regulatory Commission.

II. Funding Schedule:

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Packaging Certification and Transportation Safety	$0	$0	$1,740	+1,740	>999%
Pollution Prevention	0	413	0	-413	-100%
TOTAL, Chicago	$0	$413	$1,740	$+1,327	+321%

III. Performance Summary - Accomplishments: Chicago

	FY 1996	FY 1997	FY 1998
Packaging Certification and Transportation Safety			
• In FY 1996 and FY 1997, funds were appropriated in the Office of Environment, Safety and Health. In FY 1998, continue to process Safety Analysis Reports for Packaging (SARP) and through implementation of improved safety review procedures reduce the backlog for Type B radioactive materials and storage package SARP and process new SARP applications.	$0	$0	$1,740
TOTAL, Packaging Certification and Transportation Safety	$0	$0	$1,740
Pollution Prevention			
• In FY 1996 funds were appropriated in the Office of Waste Management. In FY 1997 resume and complete waste reduction efforts to achieve the Secretarial goals for the Department, particularly for hazardous and sanitary wastes from routine laboratory operations. In FY 1998, no activity.	$0	$413	$0
TOTAL, Pollution Prevention	$0	$413	$0
TOTAL, CHICAGO	$0	$413	$1,740

Significant Funding Changes From FY 1997 to FY 1998:

• The increase in Packaging Certification and Transportation Safety funding of $1,740,000 is attributable to the transfer of this scope of work from the Office of Environment, Safety and Health.	$+1,740
• The decrease in Pollution Prevention funding is due to a funding transfer to higher programmatic requirements for spent nuclear fuel at West Valley.	$-413

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

IDAHO

I. Mission Supporting Goals and Objectives:

The Idaho National Engineering Laboratory (INEL), established in 1949 as the National Reactor Testing Station, is situated on more than 890 square miles of the Snake River Plain in southeastern Idaho. Over the years, 52 reactors have been constructed and operated at the INEL. There are nine primary facilities at the INEL, as well as administrative, engineering, and research laboratories in Idaho Falls, approximately 50 miles east of the site.

The Nuclear Material and Facility Stabilization program is responsible for surveillance and maintenance of facilities in the deactivation and spent nuclear fuel management programs at the INEL.

The Idaho deactivation program maintains an inventory of contaminated and uncontaminated surplus facilities. It also conducts deactivation projects in the surplus facilities to transition the facilities into a safe, stable, low surveillance and maintenance cost position.

The Spent Nuclear Fuel (SNF) program receives and stores Naval spent nuclear fuel and other DOE assigned spent nuclear fuel. Current focus of the program is on placing all spent fuel into interim dry storage and preparing the fuel for permanent disposition in a geologic repository.

In performing the above functions for the Office of Nuclear Material and Facility Stabilization, the Idaho Operations Office manages those activities at the Idaho site that help to achieve key programmatic goals. The Office of Nuclear Material and Facility Stabilization's goals are: 1) redue risks; 2) lower the mortgage cost of doing business; and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

Examples of reducing risks are as follows:

The removal of spent nuclear fuel from a wet storage condition to a safe, dry storage location is a major effort at Idaho. This movement to dry storage is the main intent of the Advanced Reactivity Measurement Facility (ARMF)/Coupled Fast Reactivity Measurement Facility (CFRMF) deactivation project, the TMI-2 fuel project and the Materials Test Reactor (MTR) Canal deactivation project.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

I. Mission Supporting Goals and Objectives: Idaho

Examples of lowering mortgage costs are as follows:

The deactivation projects at ARMF/CFRMF and MTR Canal, in addition to reducing risks, will also lower the mortgage cost of doing business. When completed, surveillance and maintenance costs associated with wet storage of the fuels contained in these facilities will be avoided.

II. Funding Schedule:

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Surveillance and Maintenance	$4,263	$1,642	$1,517	$ -125	-8%
Stabilization	0	7,731	357	-7,374	-95%
Deactivation	3,736	1,508	627	-881	-58%
TOTAL, Idaho	$7,999	$10,881	$2,501	$-8,380	-77%

III. Performance Summary - Accomplishments: Idaho

	FY 1996	FY 1997	FY 1998
Surveillance and Maintenance			
• In FY 1996, provided surveillance and maintenance for the Materials Test Reactor (MTR) Canal and developed Project Management Plan, Waste Management Plan, Fuel Movement Plan, and Security Plans for the MTR Canal deactivation. In FY 1997, continue providing surveillance, monitoring, management, engineering and operational support for the MTR Canal. In FY 1998, will continue those activities described for FY 1997.	$321	$122	$122
• In FY 1996, provided required surveillance, monitoring, management, engineering and operational support in preparation for removing spent nuclear fuels from the Advanced Reactivity Management Facility (ARMF)/Coupled Fast Reactivity Measurement Facility (CFRMF). In FY 1997, no surveillance and maintenance activities due to completion of spent fuel movements, deactivation of canals, and removal of hazardous materials. In FY 1998, no activity.	1,044	0	0

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

III. Performance Summary - Accomplishments: Idaho

	FY 1996	FY 1997	FY 1998
• In FY 1996, provided surveillance, monitoring, management, training, engineering support, material accountability, waste sampling and analysis, maintenance and engineering, and operational support in the Power Burst Facility (PBF). In FY 1997, continue those activities described for PBF in FY 1996. In FY 1998, will continue those activities described for PBF in FY 1996 while deactivation planning is developed. In FY 1998, deactivation of the PBF is a privatization initiative, therefore, funds are requested in the Privatization budget.	2,898	1,520	1,395
TOTAL, Surveillance and Maintenance	$4,263	$1,642	$1,517
Stabilization			
• In FY 1996, funds were appropriated in the Office of Waste Management. In FY 1997, continue support for the Long-Term Storage of the TMI-2 Fuel Project including: project management activities, canister dewatering system testing, 1/12 size vault demonstration testing, Nuclear Regulatory Commission licensing support, and Interim Storage System pad construction. In FY 1998, operating expense funds will provide management and administrative support necessary to complete construction of the storage modules and install the dry storage canisters. Construction funding for project 93-E-900, Long-Term Storage of TMI-2, is requested in the Energy Assets Acquisition appropriation.	$0	$7,731	$357
TOTAL, Stabilization	$0	$7,731	$357
Deactivation			
• In FY 1996, initiated and completed characterization, design, planning, cost estimating and disposal of surplus buildings containing hazardous contamination. In FY 1997 and FY 1998, no activity.	$937	$0	$0

III. Performance Summary - Accomplishments: Idaho

	FY 1996	FY 1997	FY 1998
Deactivation (Continued)			
• In FY 1996, prepared for the movement of 66 spent fuel elements from the Advanced Reactivity Measurement Facility (ARMF)/Coupled Fast Reactivity Measurement Facility (CFRMF). In FY 1997, remove the spent fuel from ARMF/CFRMF, complete the deactivation of the canals and remove the hazardous materials from the facility. Prepare documentation for transfer of the facility to the Office of Environmental Restoration for decontamination and decommissioning. In FY 1998, no activity.	1,476	176	0
• In FY 1996, prepared management plan for the transfer of special nuclear material items (i.e., fuel elements, scrap, etc.) from the Materials Test Reactor (MTR) Canal to storage at the Idaho Chemical Processing Plant (ICPP). In FY 1997, initiate the transfer of the special nuclear material items from the MTR Canal to the ICPP storage facility. In FY 1998, will complete the defueling activities and prepare documentation for project closeout and transfer to the Office of Environmental Restoration.	1,323	1,332	221
• In FY 1996, no activity. In FY 1997, no activity. In FY 1998, will initiate the development of the project management plan, National Environmental Protection Act (NEPA) analysis, safety analysis requirements, fuel movement plan, waste management plan, and cask selection process for transferring PBF spent nuclear fuel to ICPP.	0	0	406
TOTAL, Deactivation	$3,736	$1,508	$627
TOTAL, IDAHO	$7,999	$10,881	$2,501

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Significant Funding Changes From FY 1997 to FY 1998: Idaho

• The surveillance and maintenance funding reflects a minimal reduction in the level of workscope being performed.	$-125
• The decrease in stabilization activities reflects FY 1997 completion of the majority of construction activities associated with the Long-Term Storage of TMI-2 Fuel Project ($6,977,000). Also, the FY 1998 construction funding, project 93-E-900, Long-Term Storage of TMI-2 Fuel, is requested in the new Energy Asset Acquisition appropriation ($397,000).	$-7,374
• The decrease in deactivation activities is due to completion of 85 percent of the workscope associated with the Materials Test Reactor Canal deactivation project.	$-881

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

OAKLAND

I. Mission Supporting Goals and Objectives:

The Oakland Operations Office manages operations at the Lawrence Berkeley National Laboratory (LBNL), the Lawrence Livermore National Laboratory (LLNL), and the Energy Technology Engineering Center (ETEC).

The Department of Energy (DOE) operations are conducted in Rockwell International-owned and DOE-owned facilities on a 290-acre site. The ETEC portion of the Santa Susana Field Laboratory consists of government-owned buildings that occupy 90 acres of the 290-acre site. The Rockwell facilities include former fabrication facilities, a hot cell, a reactor test building, a storage vault, an onsite transport cask, and other radiologically contaminated support laboratories and areas. The ETEC facilities are used to test nonnuclear systems and components for use in energy, power conversion, and liquid metal development programs.

In FY 1996, the Nuclear Material and Facility Stabilization program monitored surveillance and maintenance (S&M) activities for six sodium facilities at ETEC and initiated efforts to lower that cost. These facilities performed a number of diverse research and development activities. In FY 1997, this program funded the S&M for all of the inactive facilities at ETEC including the six sodium facilities. In FY 1998, funding responsibility is transferred to the Office of the Deputy Assistant Secretary for Environmental Restoration to reflect the efficient alignment of functions and responsibilities critical to the performance of the site cleanup mission.

The Oakland Operations Office will conduct a Pollution Prevention program to meet regulatory requirements and to reduce the generation of hazardous and sanitary wastes to minimize environmental impact and operating cost. Pollution prevention is required by various Federal laws and Executive Orders including but not limited to: Pollution Prevention Act; Resource Conservation and Recovery Act (RCRA); Emergency Planning and Community Right-to-Know Act (EPCRA); and Executive Orders 12856 and 12873. The Pollution Prevention programs will reduce the generation of waste to meet the Secretarial Pollution Prevention Goals.

The Packaging Certification and Transportation Safety program ensures that departmental and contractor personnel and hazardous materials, substances, and wastes are transported safely to ensure worker health, public safety, and environmental protection. The Oakland Operations Office will conduct a program of reviews and confirmatory analyses of Safety Analysis Reports for Packagings (SARP) for radioactive materials to verify compliance of the packaging designs with safety requirements. These packages must conform to the requirements of the U.S. Department of Transportation and the U.S. Nuclear Regulatory Commission. The office will also provide assistance in the development of transportation safety guides, standards, and requirements.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

II. Funding Schedule: Oakland

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Surveillance and Maintenance	$640	$9,146	$0	$-9,146	-100%
Deactivation	1,246	4,299	0	-4,299	-100%
Packaging Certification and Transportation Safety	0	0	1,900	+1,900	>999%
Pollution Prevention	0	865	870	+5	0%
TOTAL, Oakland	$1,886	$14,310	$2,770	$-11,540	-81%

III. Performance Summary - Accomplishments:

	FY 1996	FY 1997	FY 1998
Surveillance and Maintenance			
• In FY 1996, provided surveillance and maintenance (S&M) activities for the six Surplus Facility Inventory Assessment (SFIA) high ranking assets at ETEC, and planned for the removal of non-radioactive contaminated sodium. In FY 1997, continue to provide S&M for all inactive/standby facilities, buildings, and associated units including six SFIA high ranking assets; disposition the equipment with commercial value; disposition hazardous materials to reduce S&M requirements; and continue the contract termination closeout process. In FY 1998, this scope of work is transferred to the Office of Environmental Restoration.	$640	$9,146	$0
TOTAL, Surveillance and Maintenance	$640	$9,146	$0
Deactivation			
• In FY 1996, shipped the shielding block from Bevelac (Oakland) to the Brookhaven National Laboratory (BNL) in joint effort with Energy Research. In FY 1997, close out documentation associated with the shipment of the block from Bevelac. In FY 1998, no activity.	$1,246	$54	$0

III. Performance Summary - Accomplishments: Oakland

	FY 1996	FY 1997	FY 1998
Deactivation (Continued)			
• In FY 1996, no activity. In FY 1997, initiate removal of bulk sodium from the six high ranking facilities at ETEC; initiate removal of residue sodium in the piping and facility components from the ETEC facilities; initiate non-sodium hazardous waste removal activities for ETEC facilities/buildings; prepare a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for activities associated with ETEC. In FY 1998, this scope of work is transferred to the Office of Environmental Restoration.	$0	$4,245	$0
TOTAL, Deactivation	$1,246	$4,299	$0
Packaging Certification and Transportation Safety			
• In FY 1996 and FY 1997, funds were appropriated in the Office of Environment, Safety and Health. In FY 1998 resume backlog for Type B radioactive materials and storage package Safety Analysis Report for Packaging (SARP) and process new applications and implement improved safety review procedures.	$0	$0	$1,900
TOTAL, Packaging Certification and Transportation Safety	$0	$0	$1,900
Pollution Prevention			
• In FY 1996, funds were appropriated in the Office of Waste Management. In FY 1997 and FY 1998 target waste reduction efforts on hazardous and sanitary wastes to achieve the Secretarial goals for the Department. A new initiative for FY 1997 and FY 1998 is to expand the program such that pollution prevention is incorporated in Environmental Restoration projects.	$0	$865	$870
TOTAL, Pollution Prevention	$0	$865	$870
TOTAL, OAKLAND	$1,886	$14,310	$2,770

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

Significant Funding Changes From FY 1997 to FY 1998: Oakland

• The decrease in surveillance and maintenance funding is attributable to the transfer of the Energy Technology Engineering Center to the Office of Environmental Restoration in FY 1998.	$-9,146
• The decrease in deactivation funding is attributable to the transfer of ETEC to the Office of Environmental Restoration in FY 1998.	$-4,299
• The increase in Packaging Certification and Transportation Safety funding is attributable to the scope of work being transferred from the Office of Environment, Safety and Health.	$+1,900

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

OAK RIDGE

I. Mission Supporting Goals and Objectives:

The Oak Ridge Operations Office manages the Oak Ridge National Laboratory (ORNL), the surplus enrichment plants at Oak Ridge, Tennessee, and the surplus high assay enrichment plant at Portsmouth, Ohio. The Oak Ridge Reservation is located 20 miles west of Knoxville, in eastern Tennessee.

The ORNL occupies several sites and covers approximately 2,900 acres in Melton and Bethel Valleys, 10 miles southwest of the city of Oak Ridge, Tennessee. The ORNL's mission is to conduct applied research and development (R&D) in support of DOE programs in fusion, fission, conservation, fossil, and other energy technologies and to perform basic research in selected areas of the physical and life sciences.

The Nuclear Material and Facility Stabilization program is responsible for placing and maintaining the isotope facilities in a safe, environmentally and economically sound condition until they are ready for decontamination and decommissioning. Many of the facilities are contaminated and require continuous monitoring to assure public protection from unplanned releases.

In performing the above functions for the Office of Nuclear Material and Facility Stabilization, the Oak Ridge Operations Office manages those activities at the Oak Ridge site that help to achieve key programmatic goals. The Office of Nuclear Material and Facility Stabilization's goals are: 1) reduce risks; 2) lower the mortgage cost of doing business; and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

Several examples of reducing risks are as follows:

The removal of spent fuel elements from the Bulk Shielding Reactor will be completed in FY 1998 reducing risk at the facility. Additionally, radioactive sources will be removed from Buildings 7700B and 7704 which will reduce the risk of contamination at the facilities. Finally, the Isotopes Center Circle buildings will be reroofed reducing the risks posed by the roof under its current condition.

Several examples of lowering mortgage costs are as follows:

In addition to reducing risks, the removal of spent nuclear fuel from the Bulk Shielding Facility will also reduce the surveillance and maintenance costs at the facility. Further, deactivation activities at Buildings 7700B, 7701, 7704, 7720, 3026, 3038, 3517 and the Tower Shielding Facility will further reduce the mortgage costs.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

I. Mission Supporting Goals and Objectives: Oak Ridge (Continued)

The Packaging Certification and Transportation Safety program ensures that departmental and contractor personnel, hazardous materials, substances, and wastes are transported safely to ensure worker health, public safety, and environmental protection. The Oak Ridge Operations Office will support the National program through the development of requirements, guidelines, and standards; and maintenance and development of analytical tools to support package certification.

II. Funding Schedule:

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Surveillance and Maintenance	$9,086	$7,065	$3,772	$-3,293	-47%
Deactivation	4,808	5,177	4,600	-577	-11%
Packaging Certification and Transportation Safety	0	0	610	+610	>999%
TOTAL, Oak Ridge	$13,894	$12,242	$8,982	$-3,260	-27%

III. Performance Summary - Accomplishments

	FY 1996	FY 1997	FY 1998
Surveillance and Maintenance			
• In FY 1996, conducted surveillance and maintenance planning and work activities for 19 isotope facilities (containing 1,260,000 curies of radioactive materials). In FY 1997, continue those activities described for FY 1996 with fewer surveillance and maintenance requirements than previous year due to deactivation activities. In FY 1998, will continue those activities described for FY 1996 with fewer surveillance and maintenance requirements than previous year due to completion of deactivation activities.	$5,320	$4,561	$2,272

III. Performance Summary - Accomplishments: Oak Ridge

Surveillance and Maintenance (Continued)	FY 1996	FY 1997	FY 1998
• In FY 1996, conducted surveillance and maintenance planning and work activities for four high risk facilities (Tower Shielding Facility, Bulk Shielding Facility, Integrated Process Demonstration Facility, and High Radiation Level Analytical Facility) which contain reactor fuel, lithium, and scrap metal. In FY 1997, continue those activities described for FY 1996 with fewer surveillance and maintenance requirements than previous year due to deactivation activities . In FY 1998, will continue those activities described for FY 1996 with fewer surveillance and maintenance requirements than previous year due to completion of deactivation activities.	$3,766	$2,504	$1,500
TOTAL, Surveillance and Maintenance	$9,086	$7,065	$3,772

Deactivation

• In FY 1996, removed approximately 22 tons of uncontaminated lead bricks from the Tower Shielding Facility (TSF) to be recycled. Removed fuel plates from a silo at the TSF following an inspection and analysis which determined the cladding to be breached. The fuel plates were packaged and shipped to Savannah River for storage. In FY 1997, initiate actions to dispose of surplus contaminated equipment in Buildings 3010, 3019B, 7700, 7602; initiate plans for removal of fuel from the Tower Shielding Facility and disposition of 55 tons of sodium and six tons of lithium hydride; initiate activities to package and ship 21 fuel elements in the TSF and 73 spent fuel elements in the Bulk Shielding Reactor (BSR) Facility to the Savannah River Site. In FY 1998, will complete fuel removal activities at the Bulk Shielding Facility; will continue removal of outdoor shields at the Tower Shielding Facility; will remove radioactive sources from Building 7700B; will drain and cover Building 7701 pool; will remove radioactive sources from Building 7704; will remove activated concrete blocks from Building 7720.	$1,420	$2,801	$2,500

III. Performance Summary - Accomplishments: Oak Ridge

	FY 1996	FY 1997	FY 1998
Deactivation (Continued)			
• In FY 1996, continued deactivation of Buildings 3038, 3029 and 3026-C; disposed of eleven gloveboxes and deactivated one hot cell in Building 3038-E; removed two radioactive processing systems for handling tritium and krypton in Building 3033. In FY 1997, complete deactivation of Building 3038 gloveboxes and hoods at Building 3047 and upgrades at Building 3517; remove all waste from Building 3026-D and 3038-AHF hot cells and 3038 barricade; ship surplus material containing 108,949 curies of cesium and 1,259,583 curies of strontium to the Waste Encapsulation Storage Facility at Hanford; and complete deactivation of three isotope facilities. In FY 1998, will reroof the Isotopes Center Circle buildings; will begin glovebox and hood removal in Building 3038; will complete removal and disposal of contamination in the Y tritium cell, Building 3038; and will continue deactivation in Buildings 3026, 3038, and 3517.	$3,388	$2,376	$2,100
TOTAL, Deactivation	$4,808	$5,177	$4,600
Packaging Certification and Transportation Safety			
• In FY 1996 and FY 1997, funds were appropriated in the Office of Environment, Safety and Health. In FY 1998 coordinate Departmental transportation activities through reviews of special packagings and requests for Department of Transportation Exemptions grant applications for DOE Exemptions for special packaging; complete reviews of transportation risk assessment in Environmental Statements, and participate in interagency and international coordination meetings, maintain and upgrade the Standardized Computer Analysis for Licensing Evaluation (SCALE) and Shipping Casks Analysis System (SCANS) computer codes on an as-needed basis, and provide user support and provide reports on the implementation			

III. Performance Summary - Accomplishments: Oak Ridge

	FY 1996	FY 1997	FY 1998
Packaging Certification and Transportation Safety			
of special projects designed to provide system enhancement and/or validation; update Radioactive Materials Packages (RAMPAC) database with information on newly issued certificates and provide user support; implement upgraded RAMPAC program to include information on Type A packagings and improved communications; and issue semiannual updates to the Directory of DOE Certificates of Compliance for Radioactive Material Packaging.	$0	$0	$610
TOTAL, Packaging Certification and Transportation Safety	$0	$0	$610
TOTAL, OAK RIDGE	$13,894	$12,242	$8,982

Significant Funding Changes From FY 1997 to FY 1998:

- The decrease in surveillance and maintenance funding is attributed to cost reductions realized through completing prior year deactivation activities associated with the Surplus Facility Inventory Assessment high ranking asset projects. $-3,293
- The decrease in deactivation funding is attributed to reduction in overall project scope. $-577
- The increase in Packaging Certification and Transportation Safety funding is attributable to the package certification and transportation safety program scope of work being transferred from the Office of Environment, Safety and Health. $+610

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

OHIO

I. Mission Supporting Goals and Objectives:

The Office of Environmental Management accepted the spent fuel storage facility at the West Valley Demonstration Project site from the Office of Civilian Radioactive Waste Management as of October 1, 1996. The Office of Environmental Management will continue surveillance and maintenance of the spent fuel facility to ensure safe storage until the fuel can be shipped to the Idaho National Engineering Laboratory.

The West Valley Site was developed by a private company to process commercial spent nuclear fuel. The plant was shut down in 1972 and the decision was made not to re-start processing operations in 1976. There are 125 spent fuel elements that remain in storage and are currently planned for shipment to Idaho in 2001. The scope of work at West Valley includes safe storage of the spent nuclear fuel and preparations required before the fuel is shipped to Idaho.

The Nuclear Material and Facility Stabilization's program mission at Ohio is to continue surveillance and maintenance of the spent fuel facility at the West Valley Demonstration Project to ensure safe storage, and continue decontamination of areas within the Semi-Works Cave area at Mound.

The Mound Plant is located on 306 acres in Miamisburg, Ohio about 10 miles south of Dayton. The site is managed by the Ohio Field Office. The plant was built in the late 1940's to support research and development, testing and production activities for the Department's defense nuclear weapons complex and energy research programs until 1994. At that time, these activities were transferred to Kansas City, Los Alamos, and Savannah River.

Mound was primarily involved with components containing plutonium-238, polonium-210 and tritium and processed large quantities of various types of explosives. As a result of these operations, contamination of the buildings, soil, and groundwater with radioactive and hazardous chemicals has occurred. Mound has been placed on the National Priority List (NPL) and a Federal Facility Agreement (FFA) to effect remediation of the site has been negotiated with the Ohio Environmental Protection Agency (EPA). Mound's final mission is to transit from an active production plant to safe shutdown and cleanup of the buildings and soil and eventual disposition of the real property by the year 2005.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

I. Mission Supporting Goals and Objectives: Ohio (Continued)

The Mound Project Office assumes a leadership role to ensure that the Department of Energy exits these sites in a safe, rapid, and cost-effective manner, which is responsive to community and other stakeholder concerns. The only non-defense environmental remediation currently being conducted at Mound is the decontamination of areas within the Semi-Works Cave caused by projects relating to the recovery of various radionuclides from Cotter concentrates.

II. Funding Schedule:

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Surveillance and Maintenance	$0	$1,068	$2,195	$+1,127	+106%
Mound Project Office	0	1,021	1,003	-18	-2%
TOTAL, Ohio	$0	$2,089	$3,198	$+1,109	+53%

III. Performance Summary - Accomplishments:

	FY 1996	FY 1997	FY 1998
Surveillance and Maintenance			
• In FY 1996, this activity was funded in the Office of Civilian Radioactive Waste Management. In FY 1997, provide support for surveillance and maintenance of the Spent Nuclear Fuel Storage Facility to ensure safe storage of the spent nuclear fuel. In FY 1998, continue surveillance and maintenance of the Spent Nuclear Fuel Storage Facility to ensure safe storage of the spent nuclear fuel. Also, begin preparations to ship the fuel to the INEL by requalifing/recertifying the rail shipment casks.	$0	$1,068	2,195
TOTAL, Surveillance and Maintenance	$0	$1,068	$2,195

III. Performance Summary - Accomplishments: Ohio

	FY 1996	FY 1997	FY 1998
Mound Project Office			
• In FY 1996, this activity was funded in the Office of Environmental Restoration. In FY 1997 and FY 1998 continue the decommissioning of areas within the Semi-Works Cave caused by projects relating to the recovery of various radionuclides from Cotter concentrates.	$0	$1,021	$1,003
TOTAL, Mound Project Office	$0	$1,021	$1,003
TOTAL, OHIO	$0	$2,089	$3,198

Significant Funding Changes From FY 1997 to FY 1998:

• The increase in surveillance and maintenance activities reflects full funding of the spent nuclear fuel program by the Office of Environmental Management ($700,000). Also, includes work with the Nuclear Regulatory Commission to certify the shipment casks ($427,000).	+1,127

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE
(Dollars in Thousands)

RICHLAND

I. Mission Supporting Goals and Objectives:

The Richland Operations Office (RL) manages the Hanford Site which is located on approximately 560 square miles (1,450 square kilometers) in southeastern Washington. Facilities at the Hanford Site were among the first facilities constructed by the Manhattan Project.

There are three separate programs/projects within the Richland Operations Office non-defense budget. These include the Advanced Reactors Transition project, B-Cell cleanout program, and the Packaging Certification and Transportation program.

The majority of the Richland Advanced Reactors Transition Program is comprised of the Fast Flux Test Facility (FFTF) project located in the 400 Area at Hanford. The FFTF is a 400 megawatt, sodium-cooled, fast flux test reactor that became fully operational in 1982. Due to the lack of a long-term mission, the Secretary of Energy then ordered the shutdown of the facility on December 15, 1993. The FFTF transition mission changed to accomplish a radiologically and industrially safe shutdown by FY 2002. Major FFTF deactivation activities included: reactor defueling (completed in FY 1995); fuel off-load, washing and storage; sodium systems drain to a sodium storage facility; and support systems shutdown.

However, the Department has now decided to place FFTF in a hot standby status, pending a scheduled December 1998 determination on the possible role of this reactor as a new tritium supply source. Due to a relatively short half life, DOE's tritium inventory is decaying at a rate which depletes the entire stockpile in 10 to 15 years. This gas is needed to maintain the reliability and effectiveness of nuclear arms. The Department may subsequently submit an FY 1998 budget amendment to reflect this consideration of FFTF for a tritium supply mission.

The Office of Nuclear Material and Facility Stabilization is responsible for the Advanced Reactors Transition project and the B Cell cleanout program. In performing these functions for the Office of Nuclear Material and Facility Stabilization, the Richland Operations Office manages those activities at the Hanford site that help to achieve key programmatic goals. These goals are: 1) reduce risks; 2) lower the mortgage cost of doing business; and 3) support the U.S. nonproliferation policy through implementing the Foreign Research Reactor Spent Fuel Acceptance program.

NUCLEAR MATERIAL AND FACILITY STABILIZATION - NON-DEFENSE

I. Mission Supporting Goals and Objectives: Richland (Continued)

An example of reducing risks at Hanford is as follows:

The B Cell cleanout program will remove approximately 2.5 million curies of dispersable radioactive materials from Building 324 in the Hanford 300 Area. Because of its close proximity to the Columbia River and the city of Richland, completion of B Cell cleanout greatly reduces the risk to the public and puts the radioactive material into a form suitable for safe, low risk storage. Based upon current scope and schedules, B Cell cleanout will be completed in FY 2000.

An example of lowering the mortgage costs is as follows:

The remainder of the Richland Advanced Reactors Transition program is comprised of the following program elements: Nuclear Energy (NE) legacy facilities which include several non-reactor liquid metal test/storage facilities and a Sodium Test Facility (STF) and Building 309 Plutonium Recycle Test Reactor deactivation. The primary mission of the Advanced Reactors Transition program for the elements is to achieve a safe, environmentally compliant and cost-effective transition of the program facilities to a final shutdown configuration.

The Packaging Certification and Transportation Safety program ensures that departmental and contractor personnel, hazardous materials, substances, and wastes are transported safely to ensure worker health, public safety, and environmental protection. The Richland Operations Office will conduct a program of package testing to determine that the package meets the regulatory performance requirements for the type of hazardous materials content. These packages must conform to the requirements of the U.S. Department of Transportation.

II. Funding Schedule: Richland

Program Activity	FY 1996	FY 1997	FY 1998	$ Change	% Change
Surveillance and Maintenance	$30,873	$32,496	$32,381	$-115	0%
Deactivation	18,350	7,200	19,700	+12,500	+174%
Packaging Certification and Transportation Safety	0	0	450	+450	>999%
TOTAL, Richland	$49,223	$39,696	$52,531	$+12,835	+32%

III. Performance Summary - Accomplishments:

	FY 1996	FY 1997	FY 1998
Surveillance and Maintenance			
Fast Flux Test Facility:			
• In FY 1996, provided surveillance and maintenance to ensure that surplus facilities at the Fast Flux Test Facility and the Fuels and Material Examination Facility were maintained in a safe and compliant condition. The FFTF facilities contain nuclear materials and chemical inventories; such as 260,000 gallons of hazardous liquid sodium, 600 gallons of sodium potassium alloy, and 12 metric tons of spent fuel at FFTF. Activities included the surveillance of safety controls; maintenance of fire, safety, and life support systems; building support and essential services as required by technical specifications; system/facility monitoring, corrective, and preventive maintenance; regulatory compliance; and safeguards and security. Also, provided financial and program planning documents, such as risk/activity data sheets, site integration planning documents, progress tracking systems/site management system input, and multi-year program plans. In FY 1997, continue those activities described for FY 1996. In FY 1997 and FY 1998, will maintain FFTF in a hot standby condition assuming a possible tritium source mission after December 1998. Continue activities of FY 1996 while maintaining FFTF in a hot standby condition.	$28,761	$30,879	$30,955
• In FY 1996, procured vital equipment necessary to maintain safety and operational compliance, i.e., replacing failed parts of vital fuel off-load equipment. In FY 1997, continue those activities described for FY 1996. In FY 1997 and FY 1998, will maintain FFTF in a hot standby condition assuming a possible tritium source mission after December 1998. Continue activities of FY 1996 while maintaining FFTF in a hot standby condition.	200	217	226

III. Performance Summary - Accomplishments: Richland

	FY 1996	FY 1997	FY 1998
Nuclear Energy Legacies:			
• In FY 1996, provided surveillance and maintenance to ensure that the Nuclear Energy Legacies were maintained in a safe and compliant condition during deactivation. Activities included: radiological and safety monitoring, building administration, regular inspection for the sodium systems located in Building 337 Highbay basement, and Building 3718M; provided sodium system protection and emergency support for buildings containing sodium (approximately 90,000 gallons of radioactive and non-radioactive sodium). In FY 1997, continue those activities described for FY 1996. In FY 1998, will continue those activities described for FY 1996.	1,258	400	400
Building 308, Building 309/Plutonium Recycle Test Reactor:			
• In FY 1996, provided surveillance and maintenance to ensure that Building 308, Building 309, and the contaminated Plutonium Recycle Test Reactor systems were maintained in a safe and compliant condition during deactivation. Activities include preventive and corrective maintenance, radiation protection surveys, building administration, maintaining safe conduct of operations, operation checks, safety inspections and compliance assurance. In FY 1997, continue those activities described for FY 1996 for Building 309. Provided surveillance and maintenance functions for Building 308 during final deactivation closeout activities. Building 308 was transferred to the Office of Environmental Restoration for final deactivation in early FY 1997. In FY 1998, will continue those activities described for Building 309 in FY 1996.	654	1,000	800
TOTAL, Surveillance and Maintenance	$30,873	$32,496	$32,381

III. Performance Summary - Accomplishments: Richland

	FY 1996	FY 1997	FY 1998
Deactivation			
Fast Flux Test Facility:			
• In FY 1996, completed the following deactivation activities: finished operational testing of fuel off-load equipment and began fuel washing; completed washing and storing the first 63 (of a total 371) FFTF fuel assemblies (contained in nine interim storage containers); designed and fabricated hardware for draining residual sodium from the FFTF reactor vessel; commenced development of FFTF endpoint criteria. In FY 1997, completion of the Sodium Storage Facility and readiness assessment; continue reactor vessel drilling test to support sodium drain, accept delivery of 16 Interim Storage Casks; preserve sodium drain procedures for future use; process and transfer approximately 84 fuel assemblies to dry storage. In FY 1998, wash and cut 16 long experimental non-fuel assemblies for disposal in solid waste casks; process delayed neutron leaker assemblies; wash and ship 9 metal fuel assemblies to the Idaho National Engineering Laboratory (INEL); and procure 10 disposable solid waste casks.	$13,429	$4,600	$5,700
Nuclear Energy Legacies:			
• In FY 1996, completed the following deactivation activities: removed TRIGA reactor fuel to storage and shut down Building 308; completed Building 308 endpoint criteria documentation and Memorandum of Agreement (MOA) for transfer to the Office of Environmental Restoration; dismantled approximately 600 feet of sodium loop piping in Buildings 335A and 335; shipped sodium wetted components for reuse; managed two Resource Conservation and Recovery Act (RCRA) sodium waste storage areas (Buildings 4843 and 3718-F); and completed RCRA closure activities for the 105-DR Large Sodium Fire Facility. In FY 1997, complete the removal of Thermal Transient Loop (TTL) and Building 335A; move the 5,000 gallon 1720-DR sodium tank to the 300 Area. Complete draining and shipment of sodium from 1720-DR (4,600 gallons) and 3718-M (42,000 gallons) tanks. Clean two small tanks with water vapor-nitrogen (WVN) process. In FY 1998, begin cleaning the large tanks with WVN process. Drain and ship sodium potassium alloy from Building 337			

III. Performance Summary - Accomplishments: Richland

	FY 1996	FY 1997	FY 1998
Nuclear Energy Legacies: (Continued)			
cold trap jacket. Remove 221-T loop, 215 gallons of sodium and two storage tanks. Perform limited repair on Building 337 high bay crane. Begin removal of Building 337 sodium piping system . Begin draining and cleaning activities on Composite Reactor Component Test Activity (CRCTA) vessel (estimated 2,800 gallons of sodium). Support requirements and agreements of Cooperative Research and Development Agreement (CRADA) with DOE-RL and LM Manufacturing (Marysville, WA).	2,733	1,300	1,200
• In FY 1996, completed construction of the Sodium Storage Facility. In FY 1997, no activity. In FY 1998, no activity.	597	0	0
Building 309:			
• In FY 1996, completed the following activities: cleaned out and stabilized the fuel element rupture loop ion exchanger vault (the vault included 12 ion exchanger columns as well as low-level and transuranic waste); deactivated fire detection and suppression systems, steam and water systems; removed 5,000 gallon capacity underground diesel fuel storage tank. In FY 1997, complete Richland milestone to clean out Rupture Loop Annex; perform characterization of the transfer waste tank farm, the reactor, fuel examination cell, fuel storage basin and fuel transfer pit; and disconnect water supplies as well as process and sanitary sewer connections. In FY 1998, complete closeout of the reactor, fuel examination cell, fuel storage basin, and the Plutonium Reactor Criticality Facility.	1,591	1,300	1,300
Building 324 B Cell:			
• In FY 1996 and FY 1997, Building 324 B Cell cleanout activities were funded in the Office of Waste Management. In FY 1998, the following cleanout activities will be completed: recover dispersible material from 95 percent of the floor area; complete removal and size reduction of racks 1B, 2A, the Temporary Fuel Storage Rack, and the Engineered Container Storage Rack; and continue cleanup of low level radioactive waste material.	0	0	11,500
TOTAL, Deactivation	$18,350	$7,200	$19,700

III. Performance Summary - Accomplishments: Richland

	FY 1996	FY 1997	FY 1998
Packaging Certification and Transportation Safety			
• In FY 1996 and FY 1997, funds were appropriated in the Office of Environment, Safety and Health. In FY 1998 test and document the results for 10 Type A radioactive materials packages and update and distribute to the DOE community, the Test and Evaluation Document for DOT Specification 7A Type A Packaging, which documents test results of approved packaging.	$0	$0	$450
TOTAL, Packaging Certification and Transportation Safety	$0	$0	$450
TOTAL, RICHLAND	$49,223	$39,696	$52,531

Significant Funding Changes From FY 1997 to FY 1998:

• The surveillance and maintenance funding reflects a minimal reduction in the level of workscope being performed.	$-115
• The increase in deactivation funding reflects the transfer of Building 324 B Cell cleanout activities from the Office of Waste Management ($+11,500,000). New budget authority in FY 1998 is required to offset the use of prior year balances to address FFTF non-fuel and neutron leaker assemblies, as well as to procure solid waste casks ($+1,100,000). A decreased amount of FY 1998 funding is needed for facility and equipment legacies resulting from past Hanford Nuclear Energy R&D ($-100,000).	$+12,500
• The increase in Packaging Certification and Transportation Safety funding is attributable to the packaging certification and transportation safety program being transferred from the Office of Environment, Safety and Health.	$+450

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST

ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
(Dollars in thousands)

NUCLEAR MATERIAL AND FACILITY STABILIZATION
CAPITAL OPERATING EXPENSES AND CONSTRUCTION SUMMARY

Capital Operating Expenses	FY 1996	FY 1997	FY 1998	$ Change	% Change
GPP	$ 0	$ 0	$ 0	$ 0	0
AIP	0	0	0	0	0
Capital Equipment	200	217	226	+9	+4
Project Related Costs					
1. CDRs	0	0	0	0	0
2. "Bridge" Costs	0	0	0	0	0

Construction Project Summary

Project Number	Project Title	TEC	Previous Approp.	FY 1996 Approp.	FY 1997 Approp.	FY 1998 Request	Unapprop Balance
93-E-900	Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho	25,500	a/	a/	6,571	b/	0
TOTAL, PROJECT FUNDING - NON-DEFENSE		$ 25,500	a/	a/	$ 6,571	b/	$ 0

a/ Originally appropriated in the Office of Waste Management and transferred to the Office of Nuclear Material and Facility Stabilization in FY 1997.
b/ FY 1998 funding requested in the new Energy Assets Acquisition appropriation.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands, narrative in whole dollars)

ENVIRONMENTAL MANAGEMENT

PROGRAM MISSION

The Administration is proposing a new appropriation account in FY 1998 in response to the Government Performance and Results Act of 1993, the Federal Acquisition Streamlining Act of 1994, and the Information Technology Management Reform Act of 1996. Each of these laws are designed to improve the way in which the government plans, budgets, acquires, and accounts for fixed assets.

Fixed asset funding under the Environmental Management program provides for refurbishing or replacing inadequate facilities and infrastructure to meet modern environmental compliance requirements. Support is provided to the Oak Ridge National Laboratory and the Idaho National Engineering Laboratory. Budget authority of $2,297,000 is requested to fully fund completion of two ongoing projects.

The following tables display the projects requested in FY 1998 by the Environmental Management program they support and by field office. After the tabular material are the individual construction project data sheets describing the project and pertinent financial data.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Dollars in Thousands)

ENVIRONMENTAL MANAGEMENT

PROGRAM FUNDING PROFILE
Construction Summary

Project No.	Project Title	TEC	Previous Approp.	FY 1996 Approp.	FY 1997 Approp.	FY 1998 Request	Unapprop Balance
Waste Management (WM)							
94-E-602	Bethel Valley Federal Facility Agreement Upgrade, ORNL	$13,800	a/	a/	a/	$1,900	$ 0
Subtotal, Waste Management		$13,800				$1,900	$ 0
Nuclear Material and Facility Stabilization (NMFS)							
93-E-900	Long-Term Storage of TMI-2 Fuel, INEL	25,500	a/	a/	a/	397	0
Subtotal, Nuclear Material and Facility Stabilization		25,500				397	0
TOTAL, ENVIRONMENTAL MANAGEMENT ENERGY ASSETS ACQUISITION		**$39,300**				**$2,297**	**$ 0**

a/ Appropriated under Energy Supply Research and Development Activites Appropriation, Environmental Management Non-Defense account.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
ENERGY ASSETS ACQUISITION
(Dollars in Thousands)

ENVIRONMENTAL MANAGEMENT

PROGRAM FUNDING BY SITE

SITE		FY 1998 REQUEST	UNAPPROP. BALANCE
Oak Ridge Operations Office			
94-E-602	Bethel Valley FFA Upgrades (WM)	$ 1,900	$ 0
Idaho Operations Office			
93-E-900	Long-Term Storage of TMI-2 Fuel (NMFS)	397	0
TOTAL - ENVIRONMENTAL MANAGEMENT ENERGY ASSETS ACQUISITION		**$2,297**	**$ 0**

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from FY 1997 Congressional Budget Request are denoted with a vertical line in left margin)

ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands. Narrative material in whole dollars.)

Nuclear Material and Facility Stabilization

1.	Title and Location of Project:	Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho	2a. Project No. 93-E-900 2b. Construction Funded	ADS# ID-6353-SF

SIGNIFICANT CHANGES

- No significant changes.

DEPARTMENT OF ENERGY
FY 1998 CONGRESSIONAL BUDGET REQUEST
(Changes from the FY 1997 Congressional Budget Request are denoted by a vertical line in the left margin.)

ENERGY ASSETS ACQUISITION
(Tabular dollars in thousands. Narrative material in whole dollars.)

Nuclear Material and Facility Stabilization

1. Title and Location of Project: Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho

2a. Project No. 93-E-900 ADS# ID-6353-SF
2b. Construction Funded

3a. Date A-E Work Initiated (Title I Design Start Scheduled): 1st Quarter FY 1993

3b. A-E Work (Titles I and II) Duration: N/A

5. Previous Cost Estimate:
Total Estimated Cost (TEC)--$25,500
Total Project Cost (TPC)-- $30,000

4a. Date Physical Construction Starts: 1st Quarter FY 1995

4b. Date Construction Ends: 4th Quarter FY 1998

6. Current Cost Estimate:
TEC -- $25,500
TPC -- $30,000

7. Financial Schedule (Federal Funds):

Fiscal Year	Appropriation	Adjustments	Obligations	Costs
1993	$ 2,720		$2,720	$ 253
1994	7,320	- 466 a/	6,854	982
1995	4,910		4,910	317
1996	4,048 b/		4,048	2,923
1997	6,571 b/		6,571	7,500
1998	397		397	9,448
1999				4,077

a/ Reduction due to 3.0 percent rescission for Non-Defense ($216,000) and use of $250,000 prior year funds for uncosted offset.

b/ As the FY 1998 budget is prepared on a noncomparable basis, it should be noted that the FY 1996 funding for this project was budgeted in the Office of Waste Management and the FY 1997 funding was budgeted in the Office of Nuclear Material and Facility Stabilization.

1. Title and Location of Project:	Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho	2b.	2a. Project No. 93-E-900 Construction Funded

8. Project Description, Justification and Scope

This project provides dry storage for all reactor fuel bearing materials currently in the Test Area North (TAN) Hot Shop Pool. This will include the Three Mile Island-2 (TMI-2) core debris (packaged in stainless steel canisters), Loss-of-Fluid (LOFT) fuel modules and a small amount of DOE-owned commercial fuel. The TMI-2 core debris canisters and the LOFT and commercial fuel will be moved to an interim storage system at ICPP provided by a vendor under a design/build/turnkey procurement contract. The Long Term Storage of TMI-2 Fuel Project includes construction of a canister dewatering system and an Interim Storage System (ISS) and procurement of transport equipment. The project will install a dewatering system at TAN to remove water from the canisters and will provide transport equipment to move the fuel.

* The DOE will apply to the Nuclear Regulatory Commission for licensing of this facility. If licensing is successful, this facility will be operated under Nuclear
* Regulatory Commission oversight.

Justification of need for the Long-Term Storage of TMI-2 Fuel project is five fold. In prioritized order, this project will: (1) meet the October 17, 1995, DOE/NAVY/State of Idaho consent order/settlement agreement on spent fuel and nuclear waste; (2) significantly reduce annual storage costs, saving at least $2,000,000 per year for 30 years, for storage surveillance activities; (3) avoid potential long-term problems associated with storage in an unlined, obsolete (circa 1950) pool - no installed monitoring apparatus exists; (4) prolong canister life thus eliminating subsequent repackaging costs by removing the canisters from the lifetime-limiting water environment; and (5) allow removal of fuel materials from the pool, allowing the facility to be made available for shutdown, decontamination, and decommissioning.

* The FY 1998 appropriation will be used to complete project construction.

1. Title and Location of Project: Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho

2a. Project No. 93-E-900

2b. Construction Funded

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9. Details of Cost Estimate a/

		Item Cost	Total Cost
a.	Design and Management costs		$ 5,300
	1. Engineering design and inspection at approximately 9.1 percent of construction costs (item c)	$1,500	
	2. Construction management costs at approximately 1.2 percent of construction costs (item c)	200	
	3. Project management at 21.9 percent of construction costs (item c)	3,600	
b.	Land and land rights		0
c.	Construction costs		16,437
	1. Improvements to land	275	
	2. Buildings	0	
	3. Other structures	15,132	
	4. Utilities	330	
	5. Special facilities	700	
d.	Standard equipment		0
e.	Major computer items		0
f.	Removal cost less salvage		0
g.	Design and project liaison, testing, checkout and acceptance		0
h.	Subtotal (a through g)		$ 21,737
i.	Contingencies at approximately 17 percent of above costs		3,763
j.	Total line item cost (Section 11.a.1.[a])		$ 25,500
k.	Less: Non-Federal contribution		0
l.	Net Federal total estimated cost (TEC)		$ 25,500

a/ These estimates are based on an awarded contract for the Interim Storage System and conceptual design for the dewatering system.

1. Title and Location of Project: Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho 2a. Project No. 93-E-900 2b. Construction Funded

10. Method of Performance

The Interim Storage System will be procured via a turnkey contract. The vendor will perform design, construction, testing, and facility turnover. All other aspects of the project will be managed by the operating contractor through normal operating procedures and methods.

The dewatering system will be designed, procured, and assembled by the INEL operating contractor's personnel.

11. Schedule of Project Funding and Other Related Funding Requirements

	Previous Years	FY 1996	FY 1997	FY 1998	Outyears	TOTAL
a. Total project costs						
(1) Total facility costs						
(a) Line item (Section 9.j.)	$ 1,552	$ 2,923	$ 7,500	$ 9,448	$ 4,077	$ 25,500
(b) Plant Engineering and Design	0	0	0	0	0	0
(c) Operating Expense Funded equipment	0	0	0	0	0	0
(d) Inventories	0	0	0	0	0	0
(e) Total facility costs (Federal and Non-Federal)	$ 1,552	$ 2,923	$ 7,500	$ 9,448	$ 4,077	$ 25,500
(2) Other project costs						
(a) R&D necessary to complete project	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
(b) Conceptual design costs	0	0	0	0		0
(c) Decontamination & decommissioning (D&D)	0	0	0	0	0	0
(d) NEPA documentation costs	130	0	0	0	0	130
(e) Other project-related costs	1,730	688	833	919	200	4,370
(f) Total other project costs	$ 1,860	$ 688	$ 833	$ 919	$ 200	$ 4,500
(g) Total project costs	$ 3,412	$ 3,611	$ 8,333	$10,367	$ 4,277	$ 30,000
(h) Less: Non-federal contribution	0	0	0	0	0	0
(i) Net Federal total project cost (TPC)	$ 3,412	$ 3,611	$ 8,333	$10,367	$ 4,277	$30,000

1. Title and Location of Project: Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho

2a. Project No. 93-E-900

2b. Construction Funded

11. Schedule of Project Funding and Other Related Funding Requirements (continued)

b. Related annual costs

(1) Facility operating costs	$ 950
(2) Facility maintenance and repair costs	0
(3) Programmatic operating expenses directly related to the facility	0
(4) Capital equipment not related to construction but related to the programmatic effort in the facility	0
(5) GPP or other construction related to the programmatic effort in the facility	0
(6) Utility costs	0
(7) Other costs	0
Total related annual costs	$ 950

NOTE: Annual operating costs will depend on the type of storage system (which will be determined by the successful bidder) and the passive nature of operation. This estimate assumes some form of HVAC system.

12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements

a. Total project funding

(1) Total facility costs

(a) Line item--The TEC is based on a detailed conceptual design cost estimate validated by a team of INEL cost estimators.

(b) PE&D--None.

(c) Expense-funded equipment--None.

(d) Inventories--None.

(2) Other project costs

(a) R&D necessary to complete construction--None.

(b) Conceptual design--None.

(c) Decontamination & decommissioning (D&D)--None.

(d) NEPA documentation--$130,000 for the preparation and approval of the Environmental Assessment document.

(e) Other project related costs--Funds are required to support the following activities: (1) project planning, (2) construction management planning, (3) Quality Assurance/inspection planning, (4) project management for design support, construction support, testing, and startup, (5) safety analyses and reports, (6) readiness reviews for startup and operation, (7) operating tests, (8) training of operating and maintenance personnel, and (9) general technical support ($4,370,000).

1. Title and Location of Project:	Long-Term Storage of TMI-2 Fuel, Idaho National Engineering Laboratory, Idaho	2b.	2a. Project No. 93-E-900 Construction Funded

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12. Narrative Explanation of Total Project Funding and Other Related Funding Requirements (continued)

b. Related annual costs
   (1) Facility operating costs--Includes operating labor costs and maintenance to transfer fuel to ICPP.
   (2) Facility maintenance and repair costs--None.
   (3) Programmatic operating expenses directly related to the facility--None.
   (4) Capital equipment not related to construction but related to the programmatic effort in the facility--None.
   (5) GPP or other construction related to the programmatic effort in the facility--None.
   (6) Utility costs--None.
   (7) Other costs--None.